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                                                                      600
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cccagcacgg cgttaac tttttggttg cgatccg					240 300
aagcagagag atgttaa					360
ggttgctggt taaagcc				tctgatatat	420 462
gttacgtttg cgactta	icya aggcacyggi	. cccyyaagac	aa		402
<210> 5280 <211> 210					
<212> DNA					
<213> Enterobacter	cloacae				
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acgagtetet ttgagee etggegatee egataae					120
ttttcggtat ccaacaa			acaacattcc	ggtttgctta	180 210
gaactgttca gacagac	ary coayyyaraa	L			210
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<213> Enterobacter	cloacae				
<400> 5281				t ~~~~~~	60
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tgcgcactgg agtctac	acg ggaagcatco	, ctcgatagcc	aaccagccac		180
ttagaagcag agttcag	ıtgt tgatttcgat	gcgctgctat	cttga		225
<210> 5282 <211> 207					
<211> 207 <212> DNA					
<213> Enterobacter	cloacae				
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agggatgagg acatgca ttcacctttt tgtccga					60 120
aatgaagtta cgaaagg	gat gctatcggct				180
tctgtgcttt gctcgcc	ggt gggatag				207

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<211> 1398
<212> DNA
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                                                                    120
aaqqcacaqt tqaccqqqct aatcaqcqqc actqaacttq atqaaqcqqa qcatctqqcq
                                                                    180
                                                                    240
cttaaagaac atcatctgcg agaaatgact ccttcagata ctgccatgca ttctactagt
                                                                    300
ctcaaqacta tatatagcga ggctaaccag cgtgtatgcg gtgatattgg actgaccaca
atacteteca eggatgacet ggetgttgta gatgeeegga teeagaatea tattaaagaa
                                                                    360
tttaatgatc gctacgcgct cgacgcctgg gattatgcta ttgcctgcgg atgtgggctc
                                                                    420
atagcatcca tgctggattt actttgcgtc agagccccgc caaaacctac ggtgagcttt
                                                                    480
acggcagaag tggatggcat tttcaataaa caggtgcaga aagccttcaa tgccattttg
                                                                    540
                                                                    600
ccggaggacc tgagtaaaaa actctcagaa atgttcccta taggggcacc ggacagttcg
atcaccagcg atttagtggg cgcggccggt ggcgttttgt ctcccacaaa tcaccgctta
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cgtgctttgt cacacgatcc cafactgggc attattatcg gcataaagga tatgctgaac
                                                                    720
qqqacctqta cqqtqqttca qaatqqacaq atcqtqqttt atccttccaq taaaqqcqtt
                                                                    780
                                                                    840
actgacgaaa caaatatttt caggctcatc gccagaatgt ttggacacct ggcatcggat
gttaatgccc cctcagcaaa aggaaaccgt ggcatgggtt taccggctcc ttttatgggg
                                                                    900
ctacttcgta tgcttgaggg gatccctgtg gggagttcta acttcggcaa acaaatagag
                                                                    960
                                                                    1020
tacatgtatg tcaacgggta tgactttcgt cagtttatcg tgacaagtat tccgatgacc
                                                                    1080
ataatggaag ttttgatgcg ggttttctat gtggcgaaac aggtatcgct gggaaaagga
                                                                    1140
gcttttgggg agaccttact ggataccatg ccgttgcggc taaatccacg cttccggatg
                                                                    1200
atgettgeet tgggttatgg aacttecagt getgttaacg caggtaaaat gtatateace
ggcaatattc tcaatgcgaa ttacgcctcc tggatggggt tggcctggaa tggttttcac
                                                                    1260
tcactcaagt ggtctcttta tcagcgacac ttaaagcttt gggccggtat tgaaaaggca
                                                                    1320
                                                                    1380
gaactggaac ggcttcagaa caatatagac agcatcgagg cattgaacat cagagcagga
                                                                    1398
aacttgccag tcaagtaa
<210> 5284
<211> 210
<212> DNA
<213> Enterobacter cloacae
<400> 5284
                                                                    60
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atgaagatca cggatccttg gcgcaaaagc gaatcccagc aggtgcatca gggcgaaaac
                                                                    120
atgttcagtg aagcctgcgg tatcggtgta atgctcggta atttccagat cgctttcatg
                                                                    180
gtacagcagg ccatcaagca cgtgggttga
                                                                    210
<210> 5285
<211> 384
<212> DNA
<213> Enterobacter cloacae
<400> 5285
                                                                    60
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gcctggctta aaatgaacgg tcagggtggc cggatctata cccataagat cggcatcaaa
                                                                    120
cagcgcatgc attgttggag tcatcaggat gccattagac ggattgtacc gggttccatg
                                                                    180
ttcaatgtgt gccgcatcca ggacaccacc attaacccaa ccggttaccg cacaacggcc
                                                                    240
                                                                    300
360
cactacgcgc tcgcagtgct caccctggat atctacgtca ggtttccgca ttggttcgct
                                                                    384
ggtggccgtc tcaacttgtt ttag
<210> 5286
<211> 225
<212> DNA
<213> Enterobacter cloacae
```

•						
cgcgtagcga gtcatccgtg	tcattaaatt gagagtattg	gcccacatcc ctttaatatg tggtcagtcc tagtagaatg	attctggatc aatatcaccg	cgggcatcta catacacgct	caacagccag	60 120 180 225
<210> 5287 <211> 258 <212> DNA <213> Enter	cobacter clo	oacae				
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<210> 5288 <211> 195 <212> DNA <213> Enter	cobacter clo	oacae				
gctcaattag	ttaaacgtct taatgaaaag	actgagtttg gagctggagc cgcaattgaa	gatcttcgtg	gctgtgctgt	gagtgacgaa	60 120 180 195
<210> 5289 <211> 282 <212> DNA <213> Enter	cobacter clo	pacae				
gtagcaccgt ctgtccctct tggttagcga	tctgtacgtg cactcttcat ttgataatga	ttgccggttg taaattcctg caaccgtaaa cggtaacaag tctggcaggc	aatacggcga actgccatcc catgttagac	tggctgacga gagtgtcaac aatgttttga	atacgccgcc aatgttagga	60 120 180 240 282
<210> 5290 <211> 225 <212> DNA <213> Enter	cobacter clo	oacae				
agtgagcgcg gtgtcccccg	aaaacggccc gcggcattaa	cggaaatttc gcgagaacat ctttgcgcca aaagttgttt	ctcaggtggc gatatcatta	tcgcttttca ttgtcatccc	atacaaaacc	60 120 180 225
<210> 5291 <211> 183 <212> DNA <213> Enter	cobacter clo	oacae			·	
atctctaatt	tgtcggtagc	agagccaaaa aatcatcctc tggcgatgcc	attcgtcacc	acacacgcct	gtttaaactg	60 120 180

```
183
taa
<210> 5292
<211> 501
<212> DNA
<213> Enterobacter cloacae
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                                                                      60
tccaacccca cccttttgaa attaaaggaa attaaaatgc tgcccgacaa tcttgtcccg
                                                                      120
                                                                      180
gcaaagtacc acattacgcc tgtggaacag ccttcgacgg aagcagataa agaggcgaat
ttcactcaag gaaaaagaaa actctccgac tatgaagccg acatattaat tggtgtttca
                                                                      240
                                                                      300
cgcactggca aatcccgtaa tatggtgctg gaagagcacg atcgccattt aaaagagcgt
ttatttcgcg cgatcaagat tgaagcctta gttcatctgc tgaatgattt acaggccgaa
                                                                      360
ggggaaatag acgcccagac gctaagtcaa ataatggtcg agaaaacgca gcaaataaat
                                                                      420
gaagccggca atgaaatttg gcttaattta attacgcgtg aaaaaaacaa tcccattttt
                                                                      480
                                                                      501
tataacctgg gggaagatta a
<210> 5293
<211> 318
<212> DNA
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ttgaaaaccg atcaggctat tccactcctg caagcggaaa ccgctaaaat gctgggactg
ggatcatcgg atgaaataac tgtgaccaat gttaatggcg cccagccgga cgcactgggt
                                                                      180
                                                                      240
ggacaaaagc tgtcttatcg cgccacgacg gaaaaagggc gtattttcga ttgctcatca
                                                                      300
atgatgatgc cggggatttt aggatccgca ccgacactca gcgcgccaac ctgtacacct
                                                                      318
gttgtcacac ataaataa
<210> 5294
<211> 282
<212> DNA
<213> Enterobacter cloacae
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                                                                      60
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accetggegg tgagaateet ggtggtgaaa acceeggagg egaaaaceet ggeggtgaga
                                                                      120
atcctggcgg tgaaaacccc ggaggtgaaa atcctggcgg tgagaatcct ggtggtgaaa
                                                                      180
accccggagg tgaaaacccg ggcagcggca agccgggcat tttccagacc gtggcccaaa
                                                                      240
                                                                      282
gcagcaacca gtggaatacc gctggcgcgc tctccacgct ga
<210> 5295
<211> 477
<212> DNA
<213> Enterobacter cloacae
<400> 5295
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                                                                      60
                                                                      120
gatagcggta ataacgttta tttgacttta gatgataaaa aaagcgatga atttatctta
aagcagaatc tcgacgccct gaaaaagata aaaaatgacg agatgacgcg aattacgcag
                                                                      180
                                                                      240
gatttggttt cgattccggc cacgctggta cgcctgaaat ggcagaaccg tcgggagatt
                                                                      300
tacgccttgc aggccaagga ggagatatac ggcgcggtga tgaacgccat tattgaacag
                                                                      360
cgtcctgagc ttaaagagaa gatcctcggg cgactggagg cgaactatca gtacctgctg
                                                                      420
gcacgcgaga cagccaccet gcgcctgacc cgtaaactet cggaaggcaa ttaccgtaca
                                                                      477
tcaaacqtga cctgtgtggc gcttgatgaa gaggcgccga cggcgccttc agagtga
<210> 5296
<211> 528
<212> DNA
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## <213> Enterobacter cloacae

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<pre>&lt;400&gt; 5297 cgtctccggc atcag aagctgaagc ttccae gacatccgcc agcgc gccatagatc cgctg aatacgacca atcage </pre>	gatcc agcacagtgo gctta tgtcgatato ctgtc ggcgaaaggo cgttc gcttgatgag	ctctgtgatc ggcgatgacg	atatccgggc ccggagacgg	tccagtaccc taaagacccg	60 120 180 240 261
<211> 591 <212> DNA <213> Enterobactors <400> 5298 aagggatggt tagtgo	gcgac ttcaatagtg				60
gggatgcggc tatter gataccgacg caaate gattacctga tacgce atgcgtcctc gagage gctccggata tggcg accaaatggc tgctte aaggcaggga ggtcae tatcgcaagc gaacge ttgtttatct ttaaa	gaata tactgtactg catcc ggccagaacg gagga tcttctcagt tcgtt attcaatctg aactt acggctgagt atgga agagattgca	attgatagcc agaaaaacga atgaagctgt gtgcttgata cgacacgaag gataagctga ttaggggcag	gtacgccgct tctgctgcgt ttatgaacac tgaaaggcag cgataatgat atatgtcggt ggaacttcaa	ccgtttatat tatgctggat gtcgcttacg gcgtctgaca ccggttgctg taaaagcctc cgaggcgtgt	120 180 240 300 360 420 480 540 591
<210> 5299 <211> 213 <212> DNA <213> Enterobactor	er cloacae				
<400> 5299 agccatcacg cttctc caaaatgatg gtatc ctggtattta gctttc atgcttgggg acgace	tctgc tccggcgcag agtgc tgtgcccttt	atccgtttgc gtgggtattc	taaacaacac	ctttcttcgg	60 120 180 213
<210> 5300 <211> 333 <212> DNA <213> Enterobacto	er cloacae				
<400> 5300 aagcggattt ttgato ctctccctca agggao					60 120

atggtcttaa tctttattca	acacttccgc	caccgcgact gcgtcccgcg	gcccccggat ccggctttcg	gttaccgttt ccatcacccc ccatttttgc	gtccagattc	180 240 300 333
<210> 5301 <211> 363 <212> DNA <213> Enter	cobacter clo	pacae				
ggtcaaatgg tattgtgtat gatctgactc agcagaatat	caatcttatt ttaactattt actatacgaa taatctggtg	tatacaaaaa ttacaaccgc agcggtatta ttgcattcaa	tgtgctaaag ttaaagcacc tcgatgcagc tgccgcataa	ttatcgggaa agtgcttatc gggcaggtgc gtgctgaaat aatcactgtt gtaattacgt	tagttgtttt aggggagtgt gcagatttat tttcagtcct	60 120 180 240 300 360 363
<210> 5302 <211> 264 <212> DNA <213> Enter	cobacter clo	pacae				
<400> 5302				•		
cgtttcatac tttgaggact catccagaaa caatcttatt	tgcttcagag gcttccagcg	ggaatctcaa gatttccaac tgtgctaaag	ttactgcata ttatcgggaa	cttttgcgca aatatgatga ttggtacaca tagttgtttt	gcaggccgct ggtcaaatgg	60 120 180 240 264
<210> 5303 <211> 339 <212> DNA <213> Enter	obacter clo	pacae				
(215) Birect	ODdeter ere	Jacac				
atcaaaaata gactggaatg atcagtgccg ctggttacct	agaaagtcac gctctaaatg caaccacagg	cattgatggg ggaatcaggc cacaacgacc tcaggggacc	caagaggcg ggtgcggttc cctgttgcat gatacgctgg	ttggtaacta acgaaatttt gcagcgacgg ttaccactgc cgattactga	ttcaaacgtc tatctccatt ggttttccca	60 120 180 240 300 339
<210> 5304 <211> 669 <212> DNA <213> Enter	obacter clo	)acae				
-2102 Direct	. JUGGGG GIG					
-		-		agaagcatct		60
				cattgccatt		120
				caacacagta ccccgaccat		180 240
				ttttcagtac		300
aaagacagct	ccgcgcactg	gatctgcctt	catgacgacg	atggcaccaa	ttattggttc	360
				tagccatatc		420
				tctcagtctc		480 540
				gcaaaaaaac atggatttgt		600
				taattatcgg		660

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669
agtaactag
<210> 5305
<211> 345
<212> DNA
<213> Enterobacter cloacae
<400> 5305
                                                                      60
cgcggaggca gcatgacata tgaggaatta ataaattcgc cagccggtga gtttgtcatg
                                                                      120
tttgccagca aggatggaaa agttcgcatt gaatgccgct tcgaaagcga tacgttgtgg
                                                                      180
ctctcacagg ccacgatctg tgagttatac ggcaaagcca aagctacgat cagcgggcat
                                                                      240
atcaagaata tttttgatga gggtgaactg gtcgaaaatt cagttgttcg gttttaccga
acaactgcca gcgatggtaa agtatacaac gttcaatatt ttagcctgcc cgttattctc
                                                                      300
accategget ategtegget tattaaaatg ggaaaageag getaa
                                                                      345
<210> 5306
<211> 924
<212> DNA
<213> Enterobacter cloacae
<400> 5306
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                                                                      60
                                                                      120
ttgccagttt ctgatgccag gataatctgt aaacgttggt tatcagatga gaaaattaaa
                                                                      180
atggatattg tacttttccc tggtcagaac gcccgcgcat gggctgaaac aatgataaat
cttgaagccc gcaagctcat caatactgcg aatattgtcg gagggcaaca tctcagcgac
                                                                      240
ggactcgcac ggattaaatt tatggatgat attcggcagt ttgtgatgca acaatttagt
                                                                      300
gctacccggg cagccagaag tgatgaggag tgcatggaat gcctgaaaaa catccgggct
                                                                      360
gagaacgaaa gtcttcttga gcaaagcaga atgcttcgct cccgtacagc tcagcttttt
                                                                      420
gctcagattg aactggttaa agaaaataac aaagtcgtcg gttacgttat ctcatcgatt
                                                                      480
aaggttgtgc tttcagggtt acagattgtt gcaggtgttg gtgcaatgat gacaatgaat
                                                                      540
ccagtgggtg cgcttgcagg agcgattctg gttatggatg gtgcaaatgc catttcaaaa
                                                                      600
gaaattaaca gaacgettea acateaacea aacteegaag gtatgetgge agatggegte
                                                                      660
atggatatcg ctcagtttat gggatttaaa cgtgaatcag cacttggggt attcaatagc
                                                                      720
qtaaqcctqq caqcaaqcqt ctatacqqta tttqqcqcca tccqqaaacc cqaatcatqq
                                                                      780
cqtctqtttc qttatctccc qctqqatttc taccqcaaaq tcqacqqaat qaatcqcqca
                                                                      840
gcgctcacta tgaaaattgt cggctggggt gtctctgcaa aagtctcgtt tgatttaatt
                                                                      900
tctaatgcgt ctggacagaa ctaa
                                                                      924
<210> 5307
<211> 885
<212> DNA
<213> Enterobacter cloacae
<400> 5307
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                                                                      60
ccctcaqaaa qaatcqatat acttqaaaat aacttaatat gttttaataa ccctttaaat
                                                                      120
tttaacqacc catttgaatt caatacttct tttaacttta gtagctttga atccaattta
                                                                      180
tacgattcgt taagcactgt agaccttctt aaagaatttc cagctgaatt attaaatcag
                                                                      240
                                                                      300
attgaaaaac tgcctaaaga aattgtcagc aatatactta aagatgcaaa aaaagcaatg
ctctcaatgt ataaaaaaga aaaagaaaat ataataagag cagcagatac tacaatgcaa
                                                                      360
agttttaact caaagttgat aggaataacg agaattctat cattaacaga aacccctacg
                                                                      420
aatattttga tgtggggaca ctacgcacag gcccacagtg ggtttattat tgagtttgat
                                                                      480
atcaatcatc catttttctc acaacgtcgc ggccaaaaag gtgaatttgg ttatttacga
                                                                      540
aaagtcatat atcagaaaga atatccattc ttggatccat tctcaggcga tcaaataaat
                                                                      600
catttcctaa taaaaagcaa agactgggaa tatgaacatg aatggcgaat gttgttacca
                                                                      660
caggccaatt ctggtaaaac aattaatgta tgtgaaaaag agtttgatct ctatgaacta
                                                                      720
                                                                      780
ccatccgatg ctatcaaaac aataattttt ggttgcaata cctcagaaca ttttaaaact
                                                                      840
aaaatgttca ggttaataag ttcacgaacc gactatgaac atatcagttt tatacaggct
aaaaaatcaa attcaagatt tgagattgta ttagacccgt tataa
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<400> 5312

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<211> 189
<212> DNA
<213> Enterobacter cloacae
<400> 5308
                                                                      60
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                                                                      120
gcgagatata tgtggtatga attgatatta aaaaagtata aagttgattt atggttgttc
                                                                      180
ttccatttta agaacaataa tgacataaaa aatgtatcaa gtatcaaaat ggtgaatatc
                                                                      189
gttaaataa
<210> 5309
<211> 753
<212> DNA
<213> Enterobacter cloacae
<400> 5309
                                                                      60
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                                                                      120
ctgctggcaa accggatcac gcaaaactac agccagttta tgcgctgccc ggaggccgat
                                                                      180
gttccggctg attttctgca tcagaatgcg catgagctga gcgggtttaa cttcgtggag
cagatettee egecegeget ttgggegege aacgttegtt ttgatetgea egggtaegtg
                                                                      240
gcgcagtgga cgcgggagca ggcattttac agttcatctc gcaccctgct actgggcatg
                                                                      300
cgctgggcgg gctttggtct gatcgtggat gcgctgctcg ccaccgcgcc agccgatgtg
                                                                      360
cgctttcagt ttattacccg tcaccctgcg ctgcataagc tgatggccgc gcacgaaggc
                                                                      420
cgacgcgcca gctcgttttt cgcccctcac cgcctggtga cggtgctgct gatggacgaa
                                                                      480
cgcctgccgg atgcgccgct gttctccacc caggcagggg atcaaaaggc gtggttaacg
                                                                      540
gacgtctcaa cgcggttttt atcgcgctat ggctacagcg tccgaacgct gctgccgatc
                                                                      600
                                                                      660
tgttcgctgc acgcggcgga gtttgggctg gagagtcagg cgtatgcgcc ggaggattac
                                                                      720
cgtcaggccg ccgccgacac gctgaacgcg ctgcgcaaaa cccccacgct ctggagtgca
tgggatgatc tttcagtgat ttatcatgga tga
                                                                      753
<210> 5310
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5310
                                                                      60
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gaatcaggtt tcaccgtaaa agaattagcg tatctgaacc gaaacattag ccgttatggt
                                                                      120
tcatccctgc tcgaggtagt gcttgagtta ggtaagcgat ttatcatggt tctgtgtatt
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actgcgactg tggccctgat tttcctggcg cttctttttt tcgctgaaca ttataatatt
                                                                      240
                                                                      300
gtttccggtg gcatttctct tttcatcgta ttgattattg cctggttttt tcaacccccg
atcattacct acaaagcctg gcgcttcaga aagaaataca ttagttctgt ccagacgcat
                                                                      360
                                                                      363
tag
<210> 5311
<211> 207
<212> DNA
<213> Enterobacter cloacae
<400> 5311
agatatettg etettgtagg tacgtacatg teaacageta aacgegacee taateagtea
                                                                      60
                                                                      120
aaatccggaa aagcaccaac ttttcagatt cgtattacgc cggagttgaa ggcgcagttt
                                                                      180
gaggctgcgg cgaaggctga agggatgagt ttggggaatt ggttaaaaaa tttaggtcga
                                                                      207
aatgaattaa atagattaaa aaagtag
<210> 5312
<211> 192
<212> DNA
<213> Enterobacter cloacae
```

aaatacgaga	tgagaatgac cagctgatga	cttgaggtta gaatgaaaaa ccgggacgcg	gaaaacatcg	ctcagcgagg	aggatcaggc	60 120 180 192
<210> 5313 <211> 243 <212> DNA <213> Enter	robacter clo	pacae				٠
4400> E212						
gcgttacggg aaaatcctta	gccttcaccc aagtcaaact	cgttgctgcg ggagggcgcg ctgcgtaacc acttcctctc	gaggcgtacc gggcggagat	tgaaatgggc atatgcccgg	tgcatcgtca cggcgagatt	60 120 180 240 243
<210> 5314 <211> 222 <212> DNA <213> Enter	robacter clo	pacae	·			
<400> 5314						
	tccaccggcc	gtcactatct	cttcagggcg	tttcatgcat	gcagatcggt	60
		cggctatgta				120
		gaagaacttt tcgtcaaatg			ctggggatgg	180 222
<210> 5315 <211> 354 <212> DNA <213> Enter	cobacter clo	pacae				
· · · · · · · · · · · · · · · · · · ·					-	
acgtcgtcag tcggctgaac cgcgatctga ctttccccga	gcgcccctt gtctggttga tgcaaaaatt ttattgaaca	gttaactatc aacgctggaa catcattatt tggcattacc cgacggcaaa ccctgaagcg	agtcttatgg gccctgcacc gaacgcacgg gggcgctatc	ccccttcacc gcaacggaag tgtaccgcga agctgctgcc	ccgaagccgc cgttaatcgc tttgcaggcg tgcgtatcag	60 120 180 240 300 354
<210> 5316 <211> 198 <212> DNA <213> Enter	robacter clo	pacae				
<400> 5316						
cgatacccca agcaccagct	cgaacttttg acttaataca	tgtgcagcgc cgccaacagc tcgcgcgcta	ttcatcgcgc	gtaaggctat	actttacgcg	60 120 180 198
<210> 5317 <211> 204 <212> DNA <213> Enter	obacter clo	pacae			·	
<400> 5317						
cagcatggtg	tcggtatcac	gaagctgttg actgcgctgc ccgcgtcgct	acagcccacg	gcgtggggta	tcgtcacggc	60 120 180

```
204
acgggaacgc tggcggaaga ttaa
<210> 5318
<211> 1626
<212> DNA
<213> Enterobacter cloacae
<400> 5318
tgccgcttta gcggtactca ttgtctctca aggaaaacaa tgatgattag ctcatcgcat
                                                                      60
                                                                      120
cataccegeg aacagtttga acactgtctg geggegatee gtcaggegte tgttgaaatt
ttacttctgt tgaatgtaca tgtttctgaa ggaaaagatc cacgctggtt tctggagcaa
                                                                      180
ctggatagcg cccgcctggg gctgggcggg tggggcgctg tagccaggaa gctgaacctg
                                                                      240
aatgatgegg aaatgacgge etttacgetg caattacget tgetteagea gegtgtteee
                                                                      300
caqtatqaaa gcqqqcaqqa tqtcaqcqaa aatcaqctqa ttqcqqcqat gcqcttcqtc
                                                                      360
acctcccttq aatatctgcq tctqcaacaq cccctcctqa cctacqaaac cqqqaqqqtq
                                                                      420
ccagagaagg agagccagct tcaggcgcag aaacaggtgc gtgccattga gctgatgatt
                                                                      480
aaagggctga tacagcaggc gtggcccgac ccggtgcggc tgaataatca tcttaagacg
                                                                      540
                                                                      600
ttgtttaacg ctgaacgcgt gcgtcgctgg ctgaaaaacg gtgaaattaa tgatgttctg
                                                                      660
agcqqcatqt tqttcaqcqa actqqcccaq ctqctqqtaq ataaaaaaqa atttaqccqc
tactacgcgc cgctgtttaa cgcccggac atqctgacac tgctggtaga gccccgcaaa
                                                                      720
accetgeaaa cetteetega agatattega caaateegea acageateae egtgeageag
                                                                      780
ccgttaagcg gagcgcaaat ccagctgctc gactgctatt acacgcagat cacccgctcc
                                                                      840
gttcagcgcg cgtttgagga agggcggaca cgcgttaacc cggcggcgct gatggcggtg
                                                                      900
gacgaaagcg agctgcacgc gttctgggaa aaggcgcaaa aaatggaccg caccacaggc
                                                                      960
ggcgatcttt ttgaagtgcg cgacagtata gaaaaaccga ctcagcgtgc cacgcgtacg
                                                                      1020
ccagagcagc gcgaacagct gatttccggc gtgctgtggg gagcggttgg cgtgatggtt
                                                                      1080
atcgcgattg tcgtgggggg attctggctg gtgaacagca gtaaaccgca gccggctgtg
                                                                      1140
gccagtacgg catctcccgc accggtgcag gagatgcgcg aaacgccttc ctcgcgagaa
                                                                      1200
acgctgacgc ggatgggtgt cacctgggat gaaaacaact tccgttcagc gattagccgc
                                                                      1260
aacgataccc gggtggcgct cctgtttttg cagggcggga tggactggaa aatgtcatgg
                                                                      1320
acggaggagg cgttgtcggc aggctacgac gatgtgctgg aagtaatgtt gcgctaccgc
                                                                      1380
ctgcaaatga cagagcaaaa gccctgccga cgctttatta atacgcttag ccatgcgatg
                                                                      1440
gcgaacgggg aatcgctgac gcctatgcgt aagcagtacc tgaaagcatt ctgtaccgtc
                                                                      1500
                                                                      1560
cctgcggtgg tgaaacgcca gcagcacgac gccgatatgg caacgcgccg cgcgaagacg
cagecegatg ecageacaaa aaaatggeag tecateeaga etgecattta tgaggtgatt
                                                                      1620
                                                                      1626
cgttaa
<210> 5319
<211> 429
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(34)
<220>
<221>unsure
<222>(282)
<400> 5319
cattgcgtag attatatata tgtaagattt gacnaaaata gcatttttca aaaacattac
                                                                      60
ctacttaaga aaagagatgt atttaaaggg aaagctcatc ttgatacaga agtaatggct
                                                                      120
                                                                      180
gattgggtag atactcaaaa agaaattaat ttatttactc tggattcgct cagcaatatc
                                                                      240
aataatacag atgaatttaa caggaaaggt aacgaaagat taaatgaaat atacgaatct
cgccgggtac atggtaaaga tattaaaaag aacaggaaaa tngaacttga ttcattagga
                                                                      300
cgaactcatg ttgctaatgg aagatctgaa cccatacttc cttcatccag taatgttctg
                                                                      360
cttttgcctg gccgggagga gaaacaaaga tggttaaaag gtaagaagaa gactgaggac
                                                                      420
                                                                      429
gcagaataa
```

<210> 5320

```
<211> 333
<212> DNA
<213> Enterobacter cloacae
<400> 5320
aaagcgctac gcgttcgcct gttactacgg aaaaagatta gagatatgaa aatgcacgta
                                                                       60
                                                                       120
aagatcaccg caaaactgat ggccaaaatg caccttgttc tcgcgctggt atgggcgata
                                                                       180
ctgactattc ctaccctgct gtggtggaaa aacagcattc tgtgggtgtc gttaatgagc
                                                                       240
atttacgcca tcgtgatttc ccatctggct gcgtacagcg ccgcccatgc agaaaaagcg
                                                                       300
gccagcaagg cgatggataa aagcgaaggc gccagccaga aagccaatca aaccgccaac
                                                                       333
agcetteaag geaatgegeg teaggeacat taa
<210> 5321
<211> 243
<212> DNA
<213> Enterobacter cloacae
<400> 5321
                                                                       60
atgatttqct atttqttqqq taaqccqqaq aggaaaqaqt qqqaattqtt cccqqatatc
aatcaccgag tcattaaact cagccagata gaaaaagtta ctttcgacag aagaaaggag
                                                                       120
                                                                       180
atgatggttt cgaaacgtct taaggccaaa gactatcgaa cggtttccac gggatttaac
gtcctgagct ctaagccagg gctgataact ttggccatag cccactccta tgccgtcacc
                                                                       240
                                                                       243
tag
<210> 5322
<211> 204
<212> DNA
<213> Enterobacter cloacae
<400> 5322
ggcgccatac catcctggat ctggcacgga agatgtatcg aaaagcgcct gacacgttcc
                                                                       60
agatcqaaqt tcaqqaqtqq atttccqatc qccqttcqtc cacqtqaaaa gccgggcagq
                                                                      120
gaaaaccgct acccggccgc cgcggttaag aacgtaaatc aatcaccata cggccacgga
                                                                       180
                                                                       204
tctggccctg ttccatctct ttaa
<210> 5323
<211> 312
<212> DNA
<213> Enterobacter cloacae
<400> 5323
tgcaatattt gtttaacagg tgatcaacat ttgtgcagcg tagttcactt ttggtgcagt
                                                                      60
gtgcaggctg aagggtatct atttggtgaa tacgtcagcc tcttcacatt ttttggtaag
                                                                      120
atgaaagctc tggggaaaaa agagggagcc ttacatggcg aatttgccct ggcgggtcag
                                                                      180
                                                                      240
cgtgcgcctg atggctctcg caaaaaaaat agcgatggtc atcgggatca ttgtgctcgt
                                                                      300
tetgettteg gtgegggttt atetttegea geaggggeea geeetgeate aetggeaeae
                                                                      312
ctggcgggct ga
<210> 5324
<211> 336
<212> DNA
<213> Enterobacter cloacae
<400> 5324
                                                                      60
atttgtcgtt ttttcataag gcatgggcgt cggccaggag atcaattcca caatactgcc
ccagggggtc tgtccatagc agaaagcatt cccttcacct tgctcatccg gaaacgtgag
                                                                      120
                                                                      180
cggctttggc gcggtaaaca tctccccgcc ggcagcggtg aaagcggcta tcgccttatc
aaaatcatca acataaacag caaaatgctg gaggccaaag tcgctggcgc gggcgggcat
                                                                      240
tccctgttca gggccatgca tttcgaaaag ttcaatgccg ggtccatggg gcataacaag
                                                                      300
catgcgaatg gcgtgaattt ttgtgccggg aaataa
                                                                      336
```

```
<210> 5325
<211> 534
<212> DNA
<213> Enterobacter cloacae
<400> 5325
                                                                      60
caggagttta ctatgccatc gtcagtaagg ggcatcgacc atatcggtat tacggtgccc
                                                                      120
gacattgaaa aagccaccct attttttgaa cgcgctttcg gcgcacaggt tttatatcat
                                                                      180
tctgtcgatg cggaaaccga taatattgat caggccgccc agcagcacac cttaaaatta
                                                                      240
tttcccggca caaaaattca cgccattcgc atgcttgtta tgccccatgg acccggcatt
                                                                      300
gaacttttcg aaatgcatgg ccctgaacag ggaatgcccg cccgcgccag cgactttggc
ctccaqcatt ttqctqttta tqttqatqat tttqataaqg cqataqccqc tttcaccqct
                                                                      360
qccqqcqqqq aqatqtttac cqcqccaaaq ccqctcacqt ttccqqatqa gcaagqtgaa
                                                                      420
qqqaatqctt tctqctatqq acaqaccccc tqqqqcaqta ttqtqqaatt gatctcctqq
                                                                      480
ccgacgccca tgccttatga aaaaacgaca aatttacgcc gctggaaacc ctga
                                                                      534
<210> 5326
<211> 207
<212> DNA
<213> Enterobacter cloacae
<400> 5326
ggtgtgcagt ttctcactgg taataaacat ccgaacagtc acgtcccgag taggcgttac
                                                                      60
cagtttctgc cggaacgagt gaaaggcggc ccggaaagcg ttcggttcag tactcacatt
                                                                      120
cctgaaaata ttgatgtaca gcaggtaaca ttccgtcagt gtcatacccc gggtgaggag
                                                                      180
tacactcatc actccgtttg tcagtga
                                                                      207
<210> 5327
<211> 252
<212> DNA
<213> Enterobacter cloacae
<400> 5327
cggtatgtac catatcagat gtatcctgag aaacatcata tattaacaat agcatatatt
                                                                      60
gcgtttgtat caacgcttat attcattttg agaacatgtt cgcaattagt taattatctc
                                                                      120
qaaqtaacqq aaatatqtca gatattatat tgtgattatt attgtgtggg tattaatgat
                                                                      180
                                                                      240
qttqttcatt atttaaacaa aaaaaqactg agggaccgtt atccggaaaa tgttgtatcg
                                                                      252
ccaggaggat aa
<210> 5328
<211> 849
<212> DNA
<213> Enterobacter cloacae
<400> 5328
                                                                      60
gatttcggag aaaaaaagat gcgttatacc cgaaccagca ctgcaactga tgtcactgat
acactcagac aataccaggc tgacttgctg acaggtcctt gctggatgtc ggtatggcca
                                                                      120
ctgatagagc ggctactgag tcgtgagaat gaaatgcagt cggtctggca gaatattgcc
                                                                      180
cgtcaggcgc taacctggca gcaatgctat tgtcttctgg agcaaatcat actggcgggc
                                                                      240
                                                                      300
cgtttcagta gacctgatat cgtttcccga ttgaaagagg attatcgcca gcttgaagaa
ctgaaccgga ctatcagtaa ggaggccggt gaactggcac agaagatatt ggtccgagat
                                                                      360
gcgatcctga accggaacgc attcacactt gagagaacca cgcacatcgt ggaactgatg
                                                                      420
gagatggctg aagataatga tgggctttac cgttattatc ttcatgaaac actcgatggc
                                                                      480
                                                                      540
ctgacctgtc gttatgacgg aaaatactgg ccgggactcc ctggcgtcct gcaggttata
                                                                      600
gcaagggagc acccggaaat tggatgtcta tcagaaagcg atcgggccat cattaacggg
                                                                      660
cgcggcaaaa tgctccccga ttatctccgc gaattattca gtagcatcga gaacgtcagg
                                                                      720
cagggtccat ggggtctgcc gaaagaattt acgttgacgg acagtagcct ggctacgctg
                                                                      780
gccactgtaa cactggatca tactgaagtg ttctccgctg atacggtaaa agtacgccgg
                                                                      840
agtgaattca gcaaaagagg agagcgggga gcatggccat ttaagccact gaaggcagtc
                                                                      849
gatatgtag
```

```
<210> 5329
<211> 1740
<212> DNA
<213> Enterobacter cloacae
<400> 5329
gtggatcact ttttacccgt tgttgacagc aatccactca gcaccatccg cgaactgcta
                                                                      60
                                                                      120
tttctttacg aaatggaaga tcgtttcagt gccgataaaa aaagactccg ggtggccact
gaactgctcg agttactcga gaccgatcaa gttctcagga gagaagcatt tgaggacatc
                                                                      180
                                                                      240
cccgctcaac tggtgactct tctggacaga gatttgctgg ttgaccccac tcgcagcccg
gtggaaaagc gtcctcgtct tatctgtagc ctatgtgtac aactggcgga tatcaccgag
                                                                      300
gccagttata tcactgaggc tcttgagatg cttgaacagg aactgtttgc atggccccct
                                                                      360
ctggatgaac accatgcacg ggatatttac tcactgacaa acggagtgat gagtgtactc
                                                                      420
ctcacccqqq gtatgacact gacggaatgt tacctgctgt acatcaatat tttcaggaat
                                                                      480
qtqaqtactq aaccqaacqc tttccqqqcc qcctttcact cqttccqqca qaaactqqta
                                                                      540
acqcctactc qqqacqtqac tqttcqqatq tttattacca qtqaqaaact qcacacccta
                                                                      600
cttaacacgc aaggacccac actgcagttc aacggatgtg tgttcatgcc acttgatgaa
                                                                      660
gcccgacaac gcttctccct ctcagtcgat ataccggttt gctcaatgtc tgacacatct
                                                                      720
                                                                      780
gcccqtaaca tqqccqqtca qatqcttcqt qaatccctqq atqtcattqc ctacatqqta
qqtaaqqqaq atatcaccqt ccaqaaacaq ttcatqataa tcaqqqatqa aqacqaaaca
                                                                      840
qaaqtqccqc qcttcqataa tqaaatcqaq qcaaacqcqq accqqttaac qqacqaqqaq
                                                                      900
tttgcgcgct ttatggtggc gatgaaccga ctgttcacgg atacaccgga tgtgtcccgt
                                                                      960
aaaaaaatca gctccgcatt tcggtttttc cgtaacggca ttgaaagcca agttcaggag
                                                                      1020
agtcgtttca ccgcttactg gtcggcgctt gaatcattaa cgctaggagt tgcccctggc
                                                                      1080
acaccatcac atgaacagca tgtcatcggt gttgtggctc cctgtatggt gctggactat
                                                                      1140
gttgttaagc aactgttttc tctaagaaaa gttctgcgct tcattctgcg agagccaggg
                                                                      1200
caccccttgc gcacaccgga gatcgcttca cttccgctgg ggcaactcta tgcccttctt
                                                                      1260
aaagatgcgg accgggtccg tgaacttcag acagatttac agcactttcc ctatgtcatg
                                                                      1320
tatcgggtgc gtaagcttgc cgggatctgt gcgtcacccg agaaaatggc ggataaactg
                                                                      1380
gggcaacatg ccgagaaagt cacccgacat cttcaccgcc tgtatctgct gagaaatacc
                                                                      1440
atcgtgcaca atgcaggtac cagcccgcac attgacctgc tgacggtgaa ccttgaacac
                                                                      1500
tatctgcggg caacaatcag cgcgttgttt aatattgtgg tgatccaccc aaccgtcagc
                                                                      1560
accgctgagg aggcatttac ccggtgccag tttaccagtg agtcagtttt cagggaactg
                                                                      1620
aacccccttc acgggatcac ggaaaagaaa gtatacacag ccattgataa tcagttgaaa
                                                                      1680
aacgggacgc tttcccgtag cgatgctcgt ttgatagcat ggctcaatgc ccaccactga
                                                                      1740
<210> 5330
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 5330
gctcagcagg atttacttaa catcttacgg accattttct tcttttttat tccggactgg
                                                                      60
gaattcagta tgtaccccaa tgaatcagcg atctggatta tttatccgca aaaaaacatg
                                                                      120
tcatataaag taaggggttt tattgatttt attgatttta ttgattttat tgattttatt
                                                                      180
                                                                      225
atcgatgaaa tcggaactac tccttactgg aagcacggaa agtaa
<210> 5331
<211> 246
<212> DNA
<213> Enterobacter cloacae
<400> 5331
accttactga tgccgctgaa acatcagcgg cattccttat ttaatcaccg gcgccggcgc
                                                                      60
aggcaatccg cttactgctg cataaatccc ttttgtcatt attccttctt aactaatggt
                                                                      120
teggeacate ggttaaegee atteaaegta aceagegtea gaagtaaagt tgatttaegt
                                                                      180
attacaggat taaactatgt caaagaaact ttttggtgcc cccccaaccc tgacagacgc
                                                                      240
cagtaa
                                                                      246
<210> 5332
<211> 519
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<212> DNA <213> Enterobacter cloacae <400> 5332 gaaacctgtt gtaccagggc acagcaaaaa caccaaatct tatccagtgt taaacatcac 60 tgttatgcag gtggtaagga gaacctgatg aaactattta cgattggttt cacacaatct 120 teggeggagg attitttae gegtetgaag gaateeggag caagaegtat tetggatgtg . 180 cgtctcaata atcgctctca gctggcaggt tttgcaaaac aggacgatct gaagttcttt 240 300 gecegtaete tgtgtgatat egattaegea catatgeeag atettgeece gaegegggaa atgtttgagc gatacaaatt acagaaagga gactgggata tatattcttc ggatttcatc 360 gatctgatta caaaaagaca tatcgaaacg ctcgaaaaga gtcagtttgc tgatgcttgc 420 ttattgtgta gcgaacataa accacatcat tgccacagac ggctggttgc tgagtacctg 480 gcagataaat ggcctgatgt cactatcatg catttatag 519 <210> 5333 <211> 204 <212> DNA <213> Enterobacter cloacae <400> 5333 cgcgttctgt gtgccgttct gacctgggac tgcgcagcgg tagatgcgac cacggagatt 60 aaactggtgc tgcgcctcgc tggcaccccg atcgacatag ctatcgccgg gcacgcaatt 120 gtcgccggtg ccgtgctggt gacgaataat gcgctggagt ttgagaggat atcgaccttg 180 204 gtacctgagg actgggttaa ctag <210> 5334 <211> 210 <212> DNA <213> Enterobacter cloacae <400> 5334 ataatgttca atgtcgcccg caattttccc actgacagga tcaatccatt ttgcggattc 60 tataacatca tcaaaaagtt cgaccctgat ggcctgatgt tcggaatcgg cagggaatat 120 180 atcaataacg tcaccgcgaa cccggaacat cgcccgtccc agagttttgt ctgtacgggc 210 atactgcaga cgtgccagtt gatgaattaa <210> 5335 <211> 492 <212> DNA <213> Enterobacter cloacae <400> 5335 aggacattta aattgaacag aatgacagga ctcgctgttt tatgcctctc gctgatggga 60 tgcagtgccg tgccatcaga aaacagtgcg cagtacctca gaacggaaat gcagtcgcca 120 gtatcagggg caaccataat taccgtaact gcggacagcc ttatgaaaca agacaataca 180 cataacgcta tactgtatgc acttcgaccg atgcctggaa aagcattcac ctctgagctg 240 gacagaaaat ttgccgcagc gacgatgtat attgatttgt ctccgggtga aaaaagcaga 300 acggccgaga tcagtggtga gataaattac tatgatcacg agcgatacgt gaatgctcgc 360 ctggtaggag acagtatcag gacaataccg attgcaccaa agaccatccc gcttacactg 420 aataaaccat totoaatcaa totgooacaa ggtattoact attoagtoat gotgacggac 480 agccagcctt aa 492 <210> 5336 <211> 411 <212> DNA <213> Enterobacter cloacae <400> 5336 aggaaacaat ccatgtccaa tccagttatt tcaggcaatg gcatcttctc tcacgtcttt 60 atoggtgctg tagatgttca aaagtoggot gagttttatg acgocacttt aggtgcacto 120 ggtatcaaca accttggtcc ttttggtaat ggctgggtgt tgtttggccg tgacaagccg 180

ggctttgctg ggcgggactg	ccgccacgcc atgaaggcca	tgctgaagtt accgggtcct	gacgctttcc cgtggtcatc	ccagcaatgg atgccgcagg tgccaggtgc ccttcatctg	cctggctgct ttatgctgcc	240 300 360 411
<210> 5337 <211> 195 <212> DNA <213> Enter	robacter clo	pacae				
tgtccaggca	cctgcgaagg acgctaaggc	cagtgccgca	ctggcgggga	caaggctggg aggacgccga tcttcatcga	gagagataac	60 120 180 195
<210> 5338 <211> 216 <212> DNA <213> Enter	robacter clo	oacae				
cgcgcaaata ggcagggtgt	accttaaaag attgtaaccc	taaattaaat	gttatcaaaa cgttgttgcc	aaaacatgcc tgatgttgtt tacagcccga	ttggtggcgt	60 120 180 216
<210> 5339 <211> 234 <212> DNA <213> Enter	cobacter clo	oacae				
ccgcagcaag gaaatggaac	tgctgatgcg tgtccctgca	ttgtctcatg actgatggga	cagctgccgc gccaaacgtc	aaccagcagc tggctataac agctcgcggg tcttccagcg	ggctcaggga tgtcgcagcg	60 120 180 234
<210> 5340 <211> 234 <212> DNA <213> Enter	cobacter clo	oacae				
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                                                                      120
tactgcgact gctattgggc aaaaatcacc caattctttt tgtcattatc taataccctg
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gtaattcatt caagtattct gcttcagggc ctgttcagct tcctgtttcg ccaaggtacg
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ggcaagaatg gtggagtata g
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207

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<211> 336
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gcagcgaaaa ttgtcttcgt cgtcggtatt attctgttcc tggtcagcct gtttacgggt
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tctgtcgccc atacagcctt cagggagctg gatttcaaag tactgaatac ccgtcgcgta
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<sup>&</sup>lt;210> 5395

<sup>&</sup>lt;211> 3009

<sup>&</sup>lt;212> DNA

<sup>&</sup>lt;213> Enterobacter cloacae

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<210> 5396

<211> 1971

<212> DNA

<213> Enterobacter cloacae

<400> 5396

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<210> 5397 <211> 1236

<212> DNA

<213> Enterobacter cloacae

## <400> 5397

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```
<210> 5398
<211> 567
<212> DNA
<213> Enterobacter cloacae
<400> 5398
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tggggctcgt taatctggaa aagcggcgcg ctaccggtag ccggtgagtg gcaaaccgac
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gggccttctt tgcccgtcga gttctgtcgg gtcagtgatg gcggtgaact ggcgaccgcc
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atctqtatga atgcccctgc cgtgccggtg ctttgggcat ggctggaggc cacaacgttg
                                                                      240
agegtggeet geegegettt gegtgagege gaageeatte eegaggateg etgegatgge
                                                                      300
attggctcgt tgctaatcac cggacgcgac acgggtatcc tgacaacatg ggccagggag
                                                                      360
aaaggtattg aagcgatcat ctggaccggg ctcccgccga gaagcgcgtc acaggaaggc
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agggttcctg ccgtggacga agccatcgct tatctcgacg gcctcagcgg agagacccgc
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agccatgcgc gggactatat ttgccgcgtg cctgcccagc ttgatacgcc ctaccgacgc
                                                                      540
                                                                      567
gccattaaag aggtgcttgg gtggtga
<210> 5399
<211> 195
<212> DNA
<213> Enterobacter cloacae
<400> 5399
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gctatcccag gggatctgaa caaaaaattg ggtaaatacg ccaggttcag actcgacggt
                                                                      180
aatatctccg cccagattct ggatctgctg acgcgcaagg aacagcccaa cgccgcggtt
                                                                      195
ttcacctttt gttga
<210> 5400
<211> 249
<212> DNA
<213> Enterobacter cloacae
<400> 5400
                                                                      60
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agcatettee agtaceacaa ettegegeea ggteaggaga gtggaaaaaa teaggacaae
gataaaacag aggttaacaa tcaaactggg attgctacgc ttatgcagcc actgcaaaaa
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agattgtttt acaacaaagg tatcgtgctg cacacacact ccctgattgt cgctcaccat
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ccgatatga
                                                                      249
<210> 5401
<211> 201
<212> DNA
<213> Enterobacter cloacae
<400> 5401
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                                                                      120
gcgagcccat cagaacggcg gagtagctgt aaacgcgatg gctatcaggc attgcatgag
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tecteaggtg tageccegge aggeacegeg eegeegggga aacaggagee ttacegtgtt
                                                                      201
ttcgaacgca tagccgcctg a
<210> 5402
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5402
cgcttacccg gcctacactc tccacagcaa tacttaaacg ttgctaaact atttattctc
                                                                      60
                                                                      120
tgcacactgg tcagacccgc cttttcctgc ctaaaaccgt cattctcttc aagaaatctt
                                                                      180
tacctgcctt taactattga gacgaatccg atcgactcaa aatcctggca tgcctactat
                                                                      183
taa
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```
<210> 5403
<211> 216
<212> .DNA
<213> Enterobacter cloacae
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ctctcccacg gggagaggga gaagggcacg aatcgtaggc cgggtaaggc aaagccgcca
                                                                      120
cccggcaagg ggttagaagc gcgaatctac cgcagacgcc agcatctcca gcagccgttc
                                                                      180
                                                                      216
gctgtcttcc cagctcaggc acgggtcggt gattga
<210> 5404
<211> 282
<212> DNA
<213> Enterobacter cloacae
<400> 5404
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                                                                      60
                                                                      120
agtctgaaac tgtttggcgg ggatacggta gtggtgcgtt gctcagagcg ttgccgcatc
catctgataa gttcgaaagg acagaaacaa tcgcaggcag atatccttac cgtccaggac
                                                                      180
                                                                      240
gataaggeet ggetgaeggt geettaeace ggeaeetggg atgtgetgat egaeageeae
                                                                      282
agccagtcgc tcgaacattc cgtaagttac gtggcggcat aa
<210> 5405
<211> 384
<212> DNA
<213> Enterobacter cloacae
<400> 5405
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gatttcatag agtatggaaa ggaaataaca tgccctgaat gcgagggggt aatagtctac
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tctatcgtaa actcatatga gtttgacacg ctcacagaag aagtaaaatg ctttttggtt
                                                                      180
aagaaaatga gaggtgtgaa gcttgatagt gaacataaga aatatagcta tgatgaaagc
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caattagatg tttcgaaaaa cacatgttca aagtgtttaa aagagttttc cgctatatta
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acgtataaag aagtgcagcc agcccgatac cgggtatatc ttgtggggct ttttgaaggt
                                                                      384
gatttgaagc agatcaaact ttaa
<210> 5406
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5406
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agttatatca agcagtttaa aaaaggctac gaggaaaaag atgactacgg tttacattgt
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catattgacg tatataaacc ccttgaggag gttgacgcaa cgataccttc tcatgttgag
                                                                      180
                                                                      183
tga
<210> 5407
<211> 228
<212> DNA
<213> Enterobacter cloacae
<400> 5407
ataccetgta ttttttactt agttttacce tttattataa tttttatgee tgaggettat
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aatggcctat ctctgttaaa tattaattta ataacaatta cttgcatttt tatattgttc
                                                                      120
                                                                      180
atttotttot gttggotggo accotoacgt atogtogtoo acaottatot tttagocaaa
                                                                      228
agagaggtta acgatgccat acaaatcgaa aagcgaatta ccagataa
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<211> 186
<212> DNA
<213> Enterobacter cloacae
<400> 5408
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accccctqqq qaqtaqttqc acaqtcaqtq qqcaattcat qcctqattqa qqtqcqtaat
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acagegetet tettgeagaa acceegtaac geeggggatg aaaagetgge attacetttg
                                                                      180
cattaa
                                                                       186
<210> 5409
<211> 336
<212> DNA
<213> Enterobacter cloacae
<400> 5409
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tgtggtgaaa gtaacatact tgttagtgtg ccatttttaa gctatgcatt ggtcgactta
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acacgccagt tagtctttgt gttaagcgag cctaagccat tatcaaccgt tttgaccatc
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ttcaatgtgc agggcgaaaa actattttgg tctgccctc ctgaaggtgc gactttctat
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tacttaacat tcaacctgtc aaaggaagtg atcgttgtct gtagctatcc agcaaaaaaa
                                                                      300
atggctggca tgattggttt tattcctggg atatga
                                                                      336
<210> 5410
<211> 429
<212> DNA
<213> Enterobacter cloacae
<400> 5410
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atttatgcac cgggtcaggc ggcacttaaa ttcaatcaat ggtatatagc gcagttagat
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cagaacaaac cacccgtact caatccagac attatgaacg agtacgtagc ctcagggacc
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attgcagcaa ttaaagaaat gtactctggc gacagtaacg ataaagatat gcccgatgcg
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gatatgttta tcaaagcgca ggactgggat gatgactgga atcagataac cgtcttacat
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tctgattttg acgccgtttg cacaaacgtc tatgtcgcat ttggtaagaa gcaagatcat
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gttattgcag attgtctcgt tgaagagcaa ggaaaatgga aagtgcgatc ggcgacqcta
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attaagtaa
                                                                      429
<210> 5411
<211> 345
<212> DNA
<213> Enterobacter cloacae
<400> 5411
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aaagatatgg ggcgcacatt agtcaatgca ggctttcacc tggtatatga tcaaccccat
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gctggtgacg tcgcagttat ccaaaatata gttggtcatg atagcggtca cgtttgtata
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                                                                      300
tacgatggtc aacagtggat cagcgatttt gtgcaacgca ccatgtatcc tgggcaggct
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taccgcaaca tacaacctca ttacgaactg ttcaggcatg attaa
<210> 5412
<211> 234
<212> DNA
<213> Enterobacter cloacae
<400> 5412
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ttaatgagaa tagtaatcat taatcagttg aatgtggagt atttctttcc ttcaaagcct
                                                                      120
tacattcacg aaatgtgcgg ttatagtttt cataacattt acaaaggatt taacatatat
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acacaggttc cagttgattt ggttcgaatt tttcttaacc ggtttactcc atga
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```
<210> 5413
<211> 675
<212> DNA
<213> Enterobacter cloacae
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gtgatgcgcg agtgtcatga ccagaaatcc ggggcagaag agcggctgcg tctcgcgctg
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ccgcagctga ttgatggcat cagaaatgag ttccagctca gtcaaaaaaa tgtcctgttc
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gaatttacct accacctgaa tacccgtatt cagcggatcg atgcctccgg cggttcggaa
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gtgccttacc ggcaaatcgc tcagcaggtg aaagcccccc gcgagcgcct ccagctggcg
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ctggaacagg ggcttgcggt caccgcgctt gacgggcttt tctggtttgg cctccagcgc
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atagccgccg acgtgcagcg gttaaggaag acggggatga gaatagtgac gtccgatacg
gaggtgttcg acaccettae eggaacaaca eggegeatte eggtttateg tettgaggae
                                                                    660
                                                                    675
gctgccgcta cttag
<210> 5414
<211> 249
<212> DNA
<213> Enterobacter cloacae
<400> 5414
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<213> Enterobacter cloacae
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2640

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<sup>&</sup>lt;210> 5450

<sup>&</sup>lt;211> 786

<sup>&</sup>lt;212> DNA

## <213> Enterobacter cloacae

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                                                                       60
cctctttctc tggagttcac aatgagtact gggctgatat cccttgcggc aggcgtattg
                                                                       120
attggcctga tgtatgccgt gctgaaggtg cgctcccccg cgccgcccgc gctggcgctg
                                                                       180
attggcctgc tggggatgct ggcgggtgaa caggcgatgc gccatctttt atcccgcgat
                                                                       240
                                                                       300
aatccggctg ccgtgcaggt gacggttccc cacgttcaac acccgaccgg agcgtcatca
                                                                       303
tga
<210> 5478
<211> 360
<212> DNA
<213> Enterobacter cloacae
<400> 5478
tegaattgeg eggggeageg acaaactatg gtagagaata ttgageageg catetaegee
                                                                       60
ttagtcagac gctataacgg cgtttatcta atgaataacg aagagaagca aaaattactg
                                                                       120
aatgcaaaaa ctgatttgga tactgacatg cagcttgatg tcactgaagc agaagatttg
                                                                      180
atggacgagt tttttaaaga atttaatgtt gatagaggga attttaacat aaacacctac
                                                                      240
tatcctgatg agcctttttc atggaatcca ttcaaaaaat tcccagtggt gatggttcca
                                                                      300
                                                                      .360
gatttcacta ttggaatgct tatcgaatcc gcaaaagcgg gcaaatggtt atacgactaa
<210> 5479
<211> 462
<212> DNA
<213> Enterobacter cloacae
<400> 5479
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actatggaca caacagaaga actaaatgaa acgtattttt atgctggcag aaccaatctt
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accgcggcag gacttttttt tatgatctac tgtgaatcaa ttgccgatca ttttggtatt
                                                                      120
                                                                      180
gacgatgtgg caggaattgc tgcgttatac agtggtgcta ataatcaaac gactagaaag
                                                                      240
aaacccgcgg gagctacgga aggaacgtcc cgagcctcga aagccatgag gaactatttc
aaacaggcga aatttcctta tggcattaag ctgcctacct gggttggtgg gtacactccg
                                                                      300
                                                                      360
tggacagtaa agtgtcgaat ggtatcgaaa gtgagtgcgt ttgttggcag gacaataccg
ttaataggca tagtgatatt agtcgctgat gtatcactaa tcacctatgc tgcaatacgt
                                                                      420
gattataatc gaattgcgcg gggcagcgac aaactatggt ag
                                                                      462
<210> 5480
<211> 318
<212> DNA
<213> Enterobacter cloacae
<400> 5480
teeggetgee gtgeaggtga eggtteecea egtteaacae eegaeeggag egteateatg
                                                                      60
aaggeetgga ttattteget ggtgtgeggg geegeggetg gggtaettta egeeetgete
                                                                      120
gacgtgcatt ccccggcgcc gccggtcgtc gcgctgcttg gcctgttcgg catgctggtg
                                                                      180
ggtgaacagc tgatccccat cggacggcgt ctggtgagcc gcgaaccgct gaccctggcc
                                                                      240
tggtttcgtc atgaatgcgt accgaagatc agtggtaccg cgcccccagc gcccgcgaag
                                                                      300
gaaagccgcg acgcgtaa
                                                                      318
<210> 5481
<211> 327
<212> DNA
<213> Enterobacter cloacae
<400> 5481
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                                                                      60
caacaggcaa ataaccgaaa caggagaata attatggtag ataaaagcgc aattaaggat
                                                                      120
cacactcagg ttgtcgccag ctgcggaacg cacgtcgggg ttgtggacca tcttgatggt
                                                                      180
gagcgtatca agcttgcgaa gagcgatccg gaatcgggcg gcaagcacca ttttattcct
                                                                      240
ctcggctggg ttgataaagt cgaagataat aaagttgtcc tgaccaaaaa ccataaagag
                                                                      300
                                                                      327
gtttttgctg agtggcagga agcataa
<210> 5482
<211> 645
<212> DNA
<213> Enterobacter cloacae
<400> 5482
ttcagtcttt ttcatttaca ggaaattatt gacccgtcca tgatgaaata cattagagat
                                                                      60
agccttgcat taagtgcttt ggttaaaagt aaaatggcga ccgatgatct caaccagctt
                                                                      120
gaaacattaa aagaacagtt aaaagatcgg ttcggcgttc ctgtgggcgt ccatatgaca
                                                                      180
ggaatteett tggcagtgag cacgttactg gctatttttt gctacgccat gctgcaagtg
                                                                      240
tccctctggt tgttgctgtt tcgctggctc ggcttacccg aatttaaggt tatgatggga
                                                                      300
gtattcattg cagcgattgt atattgtctg gtagtgatga gcacgatgtt tctgactaca
                                                                      360
cgaggttctt tacctggata taaactgcat attttcgtca ttacgctgac aggcataatg
                                                                      420
agcatcattt atttcatctg gacggggatt tcgcttttat tcggccctgt tgagaactac
                                                                      480
acaccgcaaa taacctcttt gctggggctg ggatttttct ttctgaacat tatgtggatg
                                                                      540
aattcatcga ttttttaccg ctccattgcg ctaacgctac ataatcgggt ctggcgtaag
                                                                      600
cagctcaaaa tcgaggcaag gccaatgtca cacctcaaac gttga
                                                                      645
<210> 5483
<211> 183
<212> DNA
<213> Enterobacter cloacae
<400> 5483
caacaaggag ttttaacatt tgatgctgga agaattgttg cagctaacct aatagcaggc
                                                                      60
                                                                      120
aaggagacaa ccgtcctaat attcgttttt aagattaata ttaagagcaa agttttaagg
```

```
ttttcggatt ttctttatat tgacaaaata gatcaccgga ccatttattg cgatatttcc
                                                                      180
                                                                      183
<210> 5484
<211> 1059
<212> DNA
<213> Enterobacter cloacae
<400> 5484
acactattcq gaacattcct aattttaagt gttaacagga cctttactct tgttttatta
                                                                      60
acaatcaaca tttcacacgg acggagagat gaagtgacat tcacaggaca attttcaaag
                                                                      120
gatcttccag attacgcact cgcacgcagt cttggtcttg cctctggcgg cgatataaat
                                                                      180
ttcacagcac ttgcaggtca actggactgt agcagaaatt ttagccaggc cgggattatc
                                                                      240
                                                                      300
tactcagacg gtacacgtca gtggctagta cggccatcaa gaaggattgc tacaccaaac
gaaagctcgg ttagtcatgt agtcataacc aaagtaaatg ccgcattagt taaccctgtt
                                                                      360
                                                                      420
caggcaacaa cggcgacgat taattcccct tccctggcaa ctgaaattgg ttcaacggcc
atttcctgcg gagccgcaat tcttactgtt gtacttgcgg caggggccgg tatggctata
                                                                      480
cctctcactg cagggtcttc cggtgctata gccgctgtga ttttagccgg tggtgtagca
                                                                      540
actggaattc aatgtgcaaa tgggcttggc cgactatcgt tgattgctat gaatcatgat
                                                                      600
                                                                      660
gattacgttg cgtggatgga ttcccaggag tggtatacag caaccaacac agccctggat
                                                                      720
gcgatttctc ttgccggggc tgctgcgggt ttaaaaagcg ctgcattaac atatcgcctt
cttaaccgtt catcgtctga gagtttgctc tccttattac aaaaaatgag ccgggccgac
                                                                      780
cgtacgcgat taacagagga gattattcgt atccgcaatc ccggcatctc gaattcaggt
                                                                      840
qtaaaagcag caatgaaggc aggcgtgtat cccaaacgtt atccgtcaga .agcgttgcag
                                                                      900
                                                                      960
ttgctcttac agcgtgagtt gctgaatacc atttcaaatt cttctgcctt cgttggaagt
                                                                      1020
qccatctcaq gaaatatcaq aaatccacag aatgttgcac aaacgggtaa atacattttt
                                                                      1059
ggtttaattc agtctttttc atttacagga aattattga
<210> 5485
<211> 225
<212> DNA
<213> Enterobacter cloacae
<400> 5485
ctatatctga aaaccatgaa aaactttgac aacgaaatga gaattttctc tctaatattt
                                                                      60
tctqttttta taattqaqct cqtatcattt tactttaaca tatcaqqqqq ccctacqqct
                                                                      120
gtaatgagtg ctatcgttgt atcacaaagt tttgtcggcg ctcaatattt aaaagctcgt
                                                                      180
aatcggacaa tcggcagtct tcaccaacgg ccggaaggtc agatt
                                                                      225
<210> 5486
<211> 186
<212> DNA
<213> Enterobacter cloacae
<400> 5486
cctttgagaa ttcacccaaa gcgctcgcgg gctttcagcg ttaagctgat ttaccgccgg
                                                                      60
tggggaattt cgcccgccc tgagaataag cgagataact ataacgctat tgattaccct
                                                                      120
gggcaatgca taagcttcaa acaattttgt ttaacccgcg gcatgacacg ctacaatagg
                                                                      180
                                                                      186
cactaa
<210> 5487
<211> 273
<212> DNA
<213> Enterobacter cloacae
<400> 5487
cttcacccgc gcgtcgatga gatcgacgat gtcggttctg gcaagcaggt cattgatgaa
                                                                      60
                                                                      120
aacgcgtggg attcttccgg ccatatgccc caaaaattta agcgacttat aaacgaaaac
aagccgcgca ttccttccgg aagcacggcc ttacgactac aactctgtct gtcaattgag
                                                                      180
ggctgtggcc ctcaacagat tagtacagac gagtacggcg tgcgttttcg cgagccagtt
                                                                      240
tcttcgcgtg acgtttcaca gcggaagctt tag
                                                                      273
```

<213> Enterobacter cloacae

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<210> 5488
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5488
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                                                                      60
agcatctatt caaatgaaga accagaatat attcagtcag caaaaagccg tgtcggatcg
                                                                      120
tatttaacca gcgattacgg acgtgtcgaa tgtaatagca cccaggtaag tgaagatcgc
                                                                      180
tgggagctgg gctgtaccaa taaggcgaga ggcaaaacct tccagttcgc cgtttaccca
                                                                      240
                                                                      300
cccqaqcaqq caccqtatqq qqtctctcqt qcqttttatc tcqaaqcqat taatgatgat
                                                                      360
gcccgccaga gtgcagatca ggggctgatg cgttatctgc aaattaatac caaagcgggt
                                                                      363
<210> 5489
<211> 312
<212> DNA
<213> Enterobacter cloacae
<400> 5489
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                                                                      60
                                                                      120
gttgccccgc ggccaattgt taataacaat gacgatgcca gcagcgctgc ggttgagcgc
ctgattgatg gtttcatttt cctgcccgac aaatgcttat gcttttttgt tgtgttatta
                                                                      180
caggattatc atgggatcgg cagcttgtat agcacccaat ttatccgcaa gtgcttctca
                                                                      240
tcagtaccag aattaatgat cttctcgcgg ggctattttt tctgttacct tgaagtgttt
                                                                      300
                                                                      312
acaaaatttt aa
<210> 5490
<211> 660
<212> DNA
<213> Enterobacter cloacae
<400> 5490
aaaggtgaag gaatacatta tcggtactat ccagtcactg gcggtttttt gatgaaaatt
                                                                      60
ctgcacttgt taaccggaca cgtttcttac gagctcctgc aacacggaaa acggattgag
                                                                      120
                                                                      180
gacgctattg gccgtcatga caatgactta ttaaaccatt ccacacccga actggagcgg
                                                                      240
tatttttcac gcccgcttag tgagctgcca cggaaaaatg cttatccggt agcgatatta
                                                                      300
ttaccgctat ttctggtgat ttttgcgttt aatttgctgc catttctcca gacaatatcc
                                                                      360
agtatgtcgc caacgctaca tacactcagt ttttttgtcc catcgctagc gatacttatc
ttcctgatgc tcgcgagtgc cttccttgcc cggggataca cttcagggct atcagggttt
                                                                      420
                                                                      480
ttagcgcttt tcatcatcct gctgacatta acggtactgc aatggcttca ctatctgacc
                                                                      540
atttctgatg gcagtagctg gcagctgatc attgcaacga tcgctttggt aattagccgt
                                                                      600
atggtgttaa acagtcgagg ctttgtgctg ttcacgctat attgtcgttc gaagcgtctt
                                                                      660
gccacgctgg ctcgcatcat gcgcctaaag agcggcaagg ataatgtgag gaacacatga
<210> 5491
<211> 234
<212> DNA
<213> Enterobacter cloacae
<400> 5491
cacgattatt tttttcattt attcgatcca atccttagcc agaaaaatct tattgtaaat
                                                                      60
gatttcccaa taaatctagt tgctctttgc ataccagaaa tgggagttta caacgtcgat
                                                                      120
atcgctttta agaatagtct taagcgcgtt ttattgcgac cacaattttt gacactctat
                                                                      180
tttctcaaat ttaaagagtc gaataattac tctatgaaat tatccctacg atga
                                                                      234
<210> 5492
<211> 231
<212> DNA
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<400> 5492
aaagtgaaga tagagtgtcg agtagcgctg cgcttacccg acctggaaaa ccctaatccc
                                                                      60
aggccgggta aggcgaagcc gtcccccggc aaaaccaaca ccttagtggt gcaacatctc
                                                                      120
ctccaccacc tgctccttgt acatctcatt cgggtagtag gtcggccagt tatccatctc
                                                                      180
tttcagcagc gcctcgtggg aggtgttgcc cataaagata tggaagtgtg a
                                                                      231
<210> 5493
<211> 189
<212> DNA
<213> Enterobacter cloacae
<400> 5493
cccgtcaaag aagtcaaagt gccaccaggc gcggcggaat tcaccgtccg ttaccacatg
                                                                      60
cagaccgcag gcgcactgct gttcgacaac atggcgaatg gcctcgtcct caaccgcgcg
                                                                      120
                                                                      180
aagctgaccg gcatcgatct caccgctggc aaattgcaga cgggcctgtt taacagagtc
                                                                      189
cgggcgtaa
<210> 5494
<211> 222
<212> DNA
<213> Enterobacter cloacae
<400> 5494
aaaactgccg actacatcgg cgcggtacgg ggcgtggtgt cgctgcatgg aaatctcctc
                                                                      60
tgtctgtcgg cgttaattgc ccacagtgat aattcatttc ttgaacattt agacttctgg
                                                                      120
atgtctaaac gtcctaaaaa gatgtcatac cggctcgccg ccgacaaacg agaaaatttc
                                                                      180
atctgtgttg aaataaattc atgttcacag ggcgggcgat ga
                                                                      222
<210> 5495
<211> 339
<212> DNA
<213> Enterobacter cloacae
<400> 5495
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cagaacaaag teetgeteac egetggatac egegtgatgg acateggege agteegtete
                                                                      120
gacgctcaga cgacgcagaa aatgccccac ggcttcctgc ggctcagcag ccggaaattc
                                                                      180
agtaacatag ctcatgaatc ttcctcattt gtggtgtttg tgttaacact actctatccc
                                                                      240
ttaattcaga acatgaatgc gtccgcctat gccagaaaac agcaaaaaga tgacaaactt
                                                                      300
                                                                      339
aagacatccc tcgccgcgcg cggtcgtgct ggcatatga
<210> 5496
<211> 249
<212> DNA
<213> Enterobacter cloacae
<400> 5496
caccagaaga ggatcgacgc tgagaatacg ccgagccatg accagtattt tacggttgtc
                                                                      60
atgttattca tcatagggac atcagacttt aattatttaa ggttgcgagg tctgccctcg
                                                                      120
                                                                      180
ttctatattg ctgatgtgta tttattaagg agtacaaaag cgcacagtct ttattcagac
                                                                      240
tatttgcatc attacgcaaa attcaaaatt attgtttttt gggttcgtct tccgcgaaca
                                                                      249
catcaataa
<210> 5497
<211> 213
<212> DNA
<213> Enterobacter cloacae
<400> 5497
acaaccattg tttcaccatc ggcgagagtc tcttccgctg cgtgtgcgct ctggtatagc
```

			2005			
tcatttccat	ttgttaaaaa	aagtgtagcc tgcgatgacg aaaatcttca	aatattaatg	ttattatgtt atagtcattc	attcatcaac tcattacaat	120 180 213
<210> 5498 <211> 252 <212> DNA <213> Enter	cobacter clo	oacae				
ctggaattac tgtcagcttc	tggggttgat gtgacaatgc tgacgccaca	tatggtcatg tcacaaagcc	acggtgcgta cgtaaggcgc	atggtggttg cagaagcgag cagcaaccag tgttcgcgga	aaaagagatg cgtgccagct	60 120 180 240 252
<210> 5499 <211> 297 <212> DNA <213> Enter	cobacter clo	oacae			·	
<400> 5499						
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				ttaccgtccg		297
<210> 5500 <211> 426 <212> DNA	robacter clo					
<400> 5500						60
				cgttctttt		60 120
				acaatgttga cgcaggtaca		180
				ccctaacgcg		240
				ttgcggacag		300
cgcgtctatg	cctcgctgac	caagctggaa	cagctagata	tggttaacca	gcaatacctg	360
aaagataata agctga	atgtcacggg	cctgcaaaat	attcatatcg	ttcttgaacc	attattcacc	420 426
<210> 5501						
<211> 843						
<212> DNA						
<213> Enter	robacter clo	oacae				
<400> 5501			****	++++ <b>+</b>	+	60
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rggaacagaa	tatcaggatt	ctatttqcaa	gatggtctta	cacgtatcaa	attataaa	180
gagataaaac	aggttgcaga	taaagaattt	gaaacagcac	gacgagctaa	aaccgatgaa	240
gaatgcattg	catqcatcaa	aaatctqcqt	gctgaaacaq	ataatctaca	cgaacaagaa	300
				tcgagtttgt		360
aataaaatcg	tcggttatgt	tatatccgcc	gtaaacgtgg	tgctatcagg	cgtggttctc	420
				gtatgctggc		480
				tcaactttga		540
ggacataaac	cctcgcaagg	tatcattgct	gactccgcga	tgcatacggc	ccagttcatg	600
ggatttaatc	ctaacacggg	cttggctctc	rataatggtg	ttactctcgg gattatttcg	ctgccagtgtg	660 720
tacagcattg	LayyactcgC	ccyaaaaact	gyayccigga	garrarring	ceggereda	120

		2004			
cacgattact atcgcaaagt ggttatggtg ttaaagcaaa taa		-	_		780 840 843
<210> 5502 <211> 372 <212> DNA <213> Enterobacter cla	oacae		•		
4400> EE02					
<pre>&lt;400&gt; 5502 ttgcttgcac aatcagcgat aaagtgactg atgaggcttt aaaagcaaca ttgaaaaata cgatttgtta ccttggcggg gtcttcagct cacctgatag attatgtcct tcgcgcagcc atcaaggatt aa</pre>	gttacgttca tggaggaacg agtggtggct agcagttgca	gggtttacgc cttggagagg gtgtgtgcct tgggggctgg	agcccgaatt ccataaatga taatcctact cgatgatctt	gcagaagata cctcgctagg gctacttatc tggggttgcc	60 120 180 240 300 360 372
<210> 5503 <211> 204 <212> DNA					
<213> Enterobacter cl	oacae				
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<210> 5504 <211> 219 <212> DNA <213> Enterobacter cl	pacae				
<400> 5504 tccgtgaagg agacgatggt	cagettegge	gatgccgcgc	caattcacaa	actattagaa	60
tcgttaaaca acagttttgc ccgaacgttg ataacgacag tgcatcggac agggtgctca	cagctggtcg cagaagtaag	ctggaagcgt gctattaagg	catctgacgg	tgcggcgaaa	120 180 219
<210> 5505 <211> 570 <212> DNA <213> Enterobacter cle	oacae				
<400> 5505					
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<210> 5506 <211> 366 <212> DNA <213> Enterobacter clo	pacae				

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<400> 5506
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                                                                      60
atatggaaaa tcggcgcttc aaaagaagcc ccggttcagt ccaccataat agaagatacg
                                                                      120
                                                                      180
gattataccg cagctaaaaa aagagtgaac gaaaccaatg atgttgcgtt agcaacatct
                                                                      240
ttccatatgt gtgtaatcag gacgccaatc ccgacacctg attttgcagg tgcgccgcca
                                                                      300
ttttattact gtgaatttat ccagcaactg acttcgaaag aatctggaaa gcgcctcgca
aaatteetet geggtetgtt geeeteacee caaceetete eeaeggggag agggagaaaa
                                                                      360
                                                                      366
cactaa
<210> 5507
<211> 633
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
<222>(80)
<400> 5507
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cgtaccgcct ccccagcctn gaaaaacgta ttcggcaaaa cagcgttatg gctggtcggc
                                                                      120
ctttgcgcca tgctggttgt cggcctgtat atgcacgtct actggaacct gcgccacccg
                                                                      180
gcacctgaac cgatcaacgc cagcgttgcc aaaccggaaa cgcagctttc ggaaatgcat
                                                                      240
tacgtgtacg tgagtaaacc gttcccgcat ccgcagccta aagttgcgcc agtgcatgtt
                                                                      300
                                                                      360
gatgttccac cgatgcagga tctgccgatc agcagtgatg atgccgactg gcagcaggcg
                                                                      420
cccgagggcg cggtgccgca cgatacctcg cgggatacct tacccggaac cgaggcgcat
                                                                      480
gagcacgata tegeceeege cageaegage agtgaagagt cateattaae ggaattattt
aagcaggcat taaaagagca ggagcaggat tattctcaag gaaaaattcc cgcgccgccg
                                                                      540
                                                                      600
gttgacgaaa cgcaggataa ttcacaagcg agtgtaaaaa acagtggaaa tagccgttct
                                                                      633
cctttgagtg agaaaggaga acggcgggag tag
<210> 5508
<211> 186
<212> DNA
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acquaatgcg actactgccg ggcgttaaac catgtgctgc tggtatcgca tgttgaccgc
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taa
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                                                                      540
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	20.1		
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gctgataata cgcaacctgc caatgacgtt aacagcccaa tcgggatcgc taaagcctct
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	g tgacgcaccg			5 55-0	JJ J J	459

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caccacgtca ttctggcggt agaccaggtt ctgacggatg gcggggatct ggatatgaat
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## <213> Enterobacter cloacae

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                                                                       1140
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aagcgcccgc aggcgctttt tggatatcag gaatttcgct taggcagcgc cgggaaccag
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gcgtcacata cgcctatcca gctcatcacg atcctccagg cttttgtttc atatatgaaa
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	robacter clo	oacae				
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                                                                      240
caccyctata attctgaagc acagaaaatt catataaacg gcttcgagcg ctttcagggc
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                                                                       180
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gaaaatgaaa ccggtttcgg cgatctgctt gcaacggcaa tcccctttgc acatcatcaa
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<213> Enterobacter cloacae
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cataataaaa cgattcataa caacacctgt ttttggttca ataaccttat tctttctatt
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gtgctggtgc acggggcgtt tgccgacggc agcagctgga ataaggtgat tacccggctg
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                                                                       780
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gagaaatatc acctgaaagc ggcggacgta gttctgtact ccgaagaagg tgactttggc
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<211> 1665
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## <213> Enterobacter cloacae

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ttacaccacc tttgcatgcg tatgcaacac aaaaaattaa aattctcaca acaagatcga
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                                                                      180
ggcatgggcc gcctgcttaa cgccctgcaa acgctgctgt ggcgctatcc tcagcacgct
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accagecagg eegeggteee getecaceat tgggegetgg egaeggaega geegagaaae
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720

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	_		_	ccgggctgga	gtatctgcgc	480 519
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				tagagaatac		600

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                                                                      420
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tatccttga
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<212> DNA
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cggcttgata tttttactta cttccagggg aaaaccgagg cgtgggggat ggtgcaggat
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<212> DNA
<213> Enterobacter cloacae
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                                                                       120
                                                                       180
agcgtcagct atgtaccagc taaagaggct gccacgtcaa attctttaat tcatgagaag
ggttaa
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<212> DNA
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cgcgttgaca tggcgcagaa agtcctgccg cacctcgtgg cttttgtagt taaccgaggc
gtttccatcc tgatcgatga tgatgcggtc gccatcctct acggcttcga taatttcctg
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ctccggttgt tccatcgcgt ggcgccgc ggcttcgcgc cgggcgggat catgctgctg
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gataageegg tttteegeat caatgaeege caettegege tggatgteet geegggaaag
                                                                      240
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aacgtcgaag aaaaaagcgc tgtggcgagc cagcgtggtg gcattgacgt tgccgccctg
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gegetggaee caggeeatga gtegateate geeetgatag egetggetae egeggaacag
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caggtgctca agcaaatgcg cgagaccggc gaatcgcggt ggctcgtgat ggcttccggc
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<212> DNA
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gcggaaaggg tatttaatga aatgtttaag gaatataagt gcccatacgg caggtatggg
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                                                                      186
cagtga
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<211> 438
<212> DNA
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acccageege etteggeget ggeggggatt tategegeeg atgeeaeget tategateee
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tttggcgaac atagcggggt gttcgcgatc cagcgctatt tcacccactt gctggctaac
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240
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                                                                      360
ggctgctccg tggtagacat gcgcgacgat cgcattgttc gccagcggga ttactacgat
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gccggagaga tgatttacga acatctcccg atactcggct gggccgtacg cggcgtgaag
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ctgatgctgt ttttcagccc ccgcaacagt ccctcatttt ttgcgcagcc ttcatggcac
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atcgaccact atggcctgct gggtacgccg caccgcagga tcgatacaaa acgcattatt
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gttcagcagg cggaagagca accatcgcgc gacgcggacg ttgcgcggga tatcgggttc
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aagcgcaaag acgggatcgg tcatgagcgt tcactcctgc tgaggggatg gttatgcagc
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                                                                      279
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<400> 5636

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cccaaaagcg ccatggattt tcgcaaagtg atcatgctgg atcagatcga gagtatttcg
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                                                                      660
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<212> DNA
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ccgtactacg acgggccag gctgcttatt tcgctgttat ttatccagcg cgtaggcaat
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cacgtagtca ccacgatccg gcgactggcg tgcaccgccg gcagagatca gaatgtactg
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<211> 573
<212> DNA
<213> Enterobacter cloacae
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<210> 5636
<211> 198
<212> DNA
<213> Enterobacter cloacae
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aacaatgcga ttgaacattt taatctgttc tggcgtaaaa tttggttaca gcatttcctc
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<211> 1131
<212> DNA
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aaccaaatga gtcaggcttt cacatttacc cttaagcgca gttgctttga tgaaaattat
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gatcaggatg gaaacgcctc ggttaactac aaaagccacg aggtgcggca ggactttctg
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<213> Enterobacter cloacae
<400> 5639
gatgagcagc atgatggagc cgtcacattt aaacatgcat ttatgttgca ttatttgaac
                                                                      60
aagctgttat tgtcccaaag ccttagagca cataaacata agaaaagttt tgacttaaac
                                                                      120
                                                                      180
tegeceegea teaggggeat ttttttgget gtetgtaaac aaaaaaceeg eeagaagegg
                                                                      210
gtttttgtgg tattcgagaa aattatttaa
<210> 5640
<211> 330
<212> DNA
<213> Enterobacter cloacae
<400> 5640
aaaaccaaat tcgagggtat gaaaatgaaa aaagtattag ctctggttgt tgccgctgct
                                                                      60
                                                                      120
atgggtetgt etteegetge attegegget gaaactaceg ceaeegeage geetgegget
```

```
tccactgctg ctccggccaa aacggttcac cataaaaaac atcacaaagc ggctaaacca
                                                                       180
gcggcagaac aaaaagcgca ggccgctaaa aaacaccaca aaaaagcggc aaaaccagcg
                                                                       240
                                                                       300
gtagagcaga aagcccaggc ggctaaaaag catcacaaaa aagcagcaaa acacgaagcg
gctaaacctg ctgcacagcc agcagcgtaa
                                                                       330
<210> 5641
<211> 219
<212> DNA
<213> Enterobacter cloacae
<400> 5641
catggtgatt gtctggcccc tgaagcactt caaggatttt taaccgagga agcgttactt
                                                                       60
tcaggccagc tttctttaat gcggtattgt tgtcagtcat gcggaatctg tcctgttgct
                                                                       120 -
aaacgattca cttcaaaaga agaagtgaca gaaaatgcac ttgggataat gcgtctcatt
                                                                       180
atagaactgc cgtgcctaaa tgaaaagttg caagcgacc
                                                                       219
<210> 5642
<211> 231
<212> DNA
<213> Enterobacter cloacae
<400> 5642
attaaacctc cgctttattc ttatatatat gatttcctta tgtttaattt agctaaaggc
                                                                       60
ctttcgtata aacagaagtt aaacggctca ttttttctta taatcgacaa aagccatcca
                                                                      120
gatggctgtg agggtggttg ttttttgtgc tattgcgtaa ggattgtatt aagcgccata
                                                                      180
aaaatggggt tattttttta tctcaggata tttcgtggaa acaaaacgta a
                                                                       231
<210> 5643
<211> 462
<212> DNA
<213> Enterobacter cloacae
<400> 5643
tccttaagtc agtatcaggg aggtgtaggt atagaaaaga ataaggaact tgtcgccagt
                                                                      60
caggcagcgt atagcgggta tattgtggag tttaataatg gctcccgtct ttggataaat
                                                                      120
agggaaacat tgctcgtcgg atggttcgac aatccgcagg tgcctcaaaa gggaaggatg
                                                                      180
cgctttcaga agacaaagat gaatcttttt gcttatcttc ttgaacatgc tgtgcgaaaa
                                                                      240
gaggtcagcc gtgatgaatt attacatcag gtatgggaaa agtatggcct taagtcatcc
                                                                      300
agcagacaac tttggcatgc aataggccag cttaaactga gtctgtttac gctaggtatt
                                                                      360
ccttacgaat ttattcagtc gaataaaggt aagacctatt cactggaaaa agtaaaggtt
                                                                      420
ttctttatta cgcaatccga tattaatgat gatgcatatt aa
                                                                      462
<210> 5644
<211> 258
<212> DNA
<213> Enterobacter cloacae
<400> 5644
tatatgaatt tggcctattt tttatttttg tctataactg ttatgcttac gagctttatt
                                                                      60
                                                                      120
attaaatcac ttgtcgtatt ggtaaagttc aaattacttc gtgatgaacg tctcgaatat
                                                                      180
accagcaata aaaatattga tgagatgtac gatttaatga atgcgaagga agaaatcctc
ataaggcatc ataagcagat gttggcattg catctttcac tattaatatt cgttctattt
                                                                      240
attgcttaca tttactaa
                                                                      258
<210> 5645
<211> 297
<212> DNA
<213> Enterobacter cloacae
<220>
<221>unsure
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<222>(139)
<220>
<221>unsure
<222>(208)
<220>
<221>unsure
<222>(226)
<400> 5645
ttagctgccc ttcaaccagc cgggcaagat gcccgctggc ggtcgacggc gcaacgtctg
                                                                       60
ccgccgcact cagttcagtg gccgtccacg cacgcccgtc cattagcgca caaagcatct
                                                                       120
tcacgcgcga cggatcggnc attgcagccg ccaccgcggc aatcgccttt tccagcatcg
                                                                       180
cgctgttatc agagggttag ctcgtctnta acattcgtcc gcccanggtg tggtgatctc
                                                                       240
agcgggccac ttatcatcat ccctcagcag attaaggtga ttcccatggg cactgta
                                                                       297
<210> 5646
<211> 339
<212> DNA
<213> Enterobacter cloacae
<400> 5646
tacttaagta ttctcatttc atcggcaaac aacggagcca atgagatgaa cataacctcc
                                                                       60
caaccaaacc cagcgagtaa ggaatttgat atccacgcca agctcaaggc agcaaattcg
                                                                       120
cactggagtt atttacgagc tgcgcaacct catcagaatg attttgatta cgaatttaac
                                                                       180
accacattta ttgacggttt ggaattcgct atctacgaac gtgtaggtaa ttattttgtt
                                                                       240
                                                                       300
ctggttgatt tcttcaagtc atatgaagaa gcatgtgatg atgctaaaaa aatcattgat
                                                                       339
gaccatcctg acattaagaa aatgttctct gctatttaa
<210> 5647
<211> 342
<212> DNA
<213> Enterobacter cloacae
<400> 5647
atcgctggag tatttcacag caaaaaagtc gagttagatg ggatttgtta tgaaacctct
                                                                       60
gatatttgta tctcagagtt atcccatctt gaatttagtg cgtttttaag tacggatggt
                                                                       120
gctgctacca ttgctatagc aaaaaacgga actaatttta ctggacttat gcaactgaat
                                                                       180
aacgactatt ctttattgtt ttatcatgat ggtaaaataa atatggaagg tctaattaaa
                                                                       240
                                                                       300
gaaatggaat taaaaggtta tatgtatcag ggagcaatgg gcaatgatga tgttgccgct
gagtttcccg gtattctttt aattgcacca gagaagcttt aa
                                                                       342
<210> 5648
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5648
ttgcaccaga gaagctttaa tatcaaccct atcgggaaat ctttccccgt tggggagggt
                                                                       60
ttcccctttt ttttggagaa acccatgact ttaaatactt caatgcttaa caaagtatct
                                                                       120
gcaaaacaaa tctctgagaa ttttgcaaaa tcatatccag atttactgga aggtgcagtt
                                                                       180
                                                                       240
ataacaaaaa ttgaaataag tggctgtcaa ggatcgcgtc gaaacgataa aatcgatttg
                                                                       300
.tcttatgatg gagatgatat tacggatcaa aaaagcgtat ctaaaaacca attacgttgg
                                                                       360
attgacataa aagcccttag cttccaaagt acgattacca gcagaatatc cacccctttg
                                                                       363
ctc
<210> 5649
<211> 663
<212> DNA
<213> Enterobacter cloacae
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<212> DNA

```
<400> 5649
ttgaaattaa ctaaagatga tttcataaat ccctttagat ttaatattgc tcactttatt
                                                                      60
                                                                      120
ccttttacgc ctattagcgt tgaaggtgat gaaacccagg actactatca ggaacaattg
                                                                      180
ataacagatc tggcagaaga agcaatgagg gtttatgaaa aaattagtaa aaataataat
                                                                      240
ttgcgctcaa gtactattga ccgactgaag caaatgcaaa ataagatcat tagcttcatg
                                                                      300
tttatacata aaqaqqcqqc aqtacttqca qaaqctataa aacacataat qaataattta
cctaaaggtg ccatttctga acctcgcgac gttgcggtgt tacagcagtg gttttatttc
                                                                      360
atgaqtqatq cttcaatqtt aaaqcqtatt atttcaggag agcaaaaggt tactgactqq
                                                                      420
ttqqaatcta ttaccagatc atttaatcaa aqctcacaaa cagaaccgaa cgcqctacaq
                                                                      480
aacacaggta ttgaagctat tttagattca acaaatgtgt ttcaggttga acctgtcgta
                                                                      540
gagaacgata taaaaaacag cacgttttca aacactgatt ctgtagctga acctgagaaa
                                                                      600
                                                                      660
tcagtttcqc aacaggaaga caatgctgaa aatggttttg atatcgagct caaaggctgg
                                                                      663
taa
<210> 5650
<211> 633
<212> DNA
<213> Enterobacter cloacae
<400> 5650
gtaccccttt ttataaagag gtattctatg aaattagatc ttaaatcatc gccgcgccat
                                                                      60
                                                                      120
attaagcgtt tacagaatat agcaaaagtc attagcggct taggcgatgt aagagttgta
atagacgaca ataccaaagg accgtatttt gatcctgtca ataaagtttg tgttttacca
                                                                      180
aacqqcqatt atagcgatga tgactttgtc agtctgattg aaggttttac ctgtcatgaa
                                                                      240
                                                                      300
gctggtcatg gtcgctatac cgtcagtgag gtttacagtg acgcctttaa tagtgttctc
                                                                      360
atgtcatctg aagggtttac acgcttcgat gacggaatga atgcagagtt tgagagcctc
gctgagaaac gtaaagctta tagcagggca aaacgtctta ccgggcttat aaatctgttc
                                                                      420
                                                                      480
gatgatgtac agatggaaga gaaggttggt aacgattatc cggatgcaaa gcggcggctt
                                                                      540
gcagccactt acgcactgat ggttaaagcc ggaaggatga ctcctgatat atcttctcgt
ccggaaaatc ctgtcctatt tattgagtgg tatctgctta actcatcgcg agtacaatgt
                                                                      600
cttaactgcg gagtgcagga acgcactttt ttt
                                                                      633
<210> 5651
<211> 237
<212> DNA
<213> Enterobacter cloacae
<400> 5651
acattaacta aactaggatt tatctatatg aaaaacatca aatctatcgc cgctgcctct
                                                                      60
                                                                      120
ttgttatccg ctgtgtcctt ctctggcctg gcacagaaca ttagtgttac tgacacaact
                                                                      180
cttgatggcg ctgaagcgca gattgcggct aaggcaaaaag aggcaaaaac ctcctacaaa
                                                                      237
atcatttctg catatactgg taatcgtgtg cacatgaccg ctgttctggg tgaatag
<210> 5652
<211> 363
<212> DNA
<213> Enterobacter cloacae
<400> 5652
agacaagagg catcgacaat gcgtctggca tcatatgcta ttgcgttact tttcatcact
                                                                      60
                                                                      120
tcattgacgg gctgtaaacc ggaaaatgga aaggcttttg ttggaaattg ggtcgaggaa
acaaattcaa agatcccggc taaaatttct attgccgacg agaaatcggg gcaacgtcat
                                                                      180
ttctatgcgg taaaaataac cgatctcata tgggataaag aaacgggcgt ccattacaac
                                                                      240
                                                                      300
acqaaaaaaa tcaatgccat gctggataaa gaaaatttcc tgtgggcgaa taatggggat
aacttcatca tctttqacqa tcatcttatq tataacqqaq atcqctacaa acqtqttqaq
                                                                      360
                                                                      363
<210> 5653
<211> 195
```

## <213> Enterobacter cloacae

<400> 5653 gtcccgcaac gagactgcca cgagtagggc aagcggacct	gtgataaact tacacacgtg	ggaggaacgt	ggggatgacg	tcaagtcatc	atggccctta	60 120 180 195
<210> 5654 <211> 609 <212> DNA <213> Enter	obacter clo	oacae				
<400> 5654						
ccccaaatgt	ctaaaaataa	agctcgcagt	aaagcccttc	atcaaacctt	tagtgaaatt	60
attccagaga			_			120
gaacgtgata		-			_	180
aagtctctta						240
catgtggatg			_		_	300
cttaaagctt						360 420
gttgaggagt tcacttgaaa						480
atttgcaaac						540
tacgaaaatg						600
aagcggtga						609
<210> 5655						
<211> 220				•		
<212> DNA						
<213> Enter	obacter clo	oacae				
<400> 5655						
actttgggcc	tgagagaagc	tacactgaaa	gaacagtttt	tagtttctgc	ggtctcgtta	60
tacccaatta	cctggtttaa	gcagttcccc	aaatggactt	atacctccga	tcaaaccaac	120
		-		gaattaccaa	tggttacgaa .	
cacggattcc	ctataaagat	ttttttactc	cggaacagac			220
<210> 5656						
<211> ,855		•				
<212> DNA						
<213> Enter	obacter clo	acae				
<400> 5656						
tttcagatca						60
gcgttgagcg						120
gcgcagagca						180 240
ttcgccacca attccggcga						300
ggcgggaccg						360
gcgactaagg						420
ggtacatacc						480
ggtaacacca						540 600
cgcatagcgc acgaatcctc						660
tcggacatta						720
atcgcggcaa						780
cgcggcgtta	ttgctcagga					840
aagaaagtac	tatgt					855
<210> 5657						

<210> 5657 <211> 192

<212> DNA <213> Enter	robacter clo	oacae				
ttattcattc	tggatcacaa aggtgaatga tcaaaaataa ga	caggtatgag	attcatcctt	atcagcgcgc	tggtgataaa	60 120 180 192
<210> 5658 <211> 216 <212> DNA <213> Enter	robacter clo	pacae				
tcaatggaac aagcgtggtc	gcggatcgga aggttgctga tctctgtgaa atgtgaaaag	taagttcttt tggtcactct	gacaggctgg tcaaaagaga	tgagtggtca	gattaagatt	60 120 180 216
<210> 5659 <211> 297 <212> DNA <213> Enter	robacter clo	pacae				
atggggatcg cgcaaacggc gctaacctga	ggctggtcga ctgcaccagg aaatgcatcg tgcgagatag tgaaaaccat	gcagcgtatg gatccgcttt cgcagctttc	ggcgagcaga cacctgaacc ggtattgatt	caggcatcaa ggggagccat tctgcgctca	tggatttttc taagcgatac gattgccaat	60 120 180 240 297
<210> 5660 <211> 237 <212> DNA <213> Enter	robacter clo	oacae				
tctttcccga caaggtgtag	tatcaggtga tccggttagt catcattgag gagattccgg	cttcccaaca cgccgcacga	ttacgcctgt agcgcggaac	ttattctctg gtatcgctaa	tgacctttca tggttcaagt	60 120 180 237
<210> 5661 <211> 210 <212> DNA <213> Enter	robacter clo	pacae				
aagcatccga ttaaagaagc	ttaacttagg ggccgatgaa gagatgcagg atcggctagt	gatgattcag gcgggactat	tgtcagaaaa	aaacccgata	ccagaacgac	60 120 180 210
<210> 5662 <211> 579 <212> DNA <213> Enter	robacter clo	oacae				
<400> 5662 cagccttttt	ttagtgatat	gaatagtaga	gtaaccaacc	ctgagtcgta	catattttct	60

120

180

240

300

360

4.20

480

540

579

```
gcaatcatct atattggcaa agataacttc accagtaacg aagtagcgaa aattcttatc
gggcgatttt cacttccgaa aaattattta aaggcaaaag cttttgctta taaccaaatt
caaggtctgg ttagaaaggg attgttaaat aaagtaagaa aattaggtgc gtatcaatat
ttatactcaq ccacatctqa attcaatqtc qcaaaqqaaa acgtagagtt aattgaggta
tcccaaaaaa gcccctgtca acttatttca agtgctacca gttatgaaca tagcaatgta
aacattcaaa taagaactct tattgaaaaa tacagcagcg agttggaaaa agtatcagga
qtaaaqgaqa tttatgaaga attgataatt gccgtgccga gcagggaaaa tgaattcagg
aaactttctc tcgaacaaga gaaaaagcaa attaagataa atgaacaaat attcttcacc
acquagetge aaggatgeee gataaattet atggtteag
<210> 5663
<211> 144
<212> PRT
<213> Enterobacter cloacae
<400> 5663
Cys Cys Arg Arg Leu Ser Gly Ser Ala Ser Pro Arg Trp Ser Leu Cys
1
Leu Cys Trp Cys Ser Gly Cys Cys Arg Ala Cys Ser Pro Ser Phe Cys
            20
                                25
Leu Gly Ser Pro Pro Gly Ala Ser Cys Ser Pro Ala Pro Ser Gly Cys
                            40
Ala Phe Ser Cys Arg Phe Cys Phe Ser Ala Pro Ala Ala Ser Cys Phe
                        55
                                             60
Ile Leu Val Val Ala Leu Leu Phe Cys Leu Arg Phe Val Val Phe Pro
                    70
                                         75
Val Leu Leu Phe Gly Ser Val Cys Leu Ala Trp Phe Leu Val Phe Ala
                85
                                     90
Phe Leu Val Ala Leu Trp Met Asp Gln Gly Val Val Ser Trp Leu Arg
            100
                                105
                                                     110
His Val Leu Leu Ala Pro Gly Ser His Lys Asn Pro Val Thr Leu Val
                            120
Ile Thr Gly Leu Ile Leu Arg Ala Ile Val Trp Ser Val Met Leu Leu
    130
                        135
                                             140
<210> 5664
<211> 77
<212> PRT
<213> Enterobacter cloacae
<400> 5664
Ser Arg Thr Arg Gln Glu Arg Lys Ser Lys Thr Asp Arg Lys Lys Arg
                                                         15
1
                                     10
Asn Arg Lys Glu Gln Gly Ser Lys Thr Pro Gln Glu Glu Asn Pro Asn
                                25
Lys Thr Lys Ala Asn Arg Arg Asp Ser Ser Gln Asn Thr Ser Arg Asp
        35
                            40
Thr Lys Thr Thr Glu Ala Thr Pro Ile Gln Lys Asp Gly Asp Asn Ile
    50
                        55
Ser Thr Lys Lys Thr Asn Arg Asp Lys Asn Arg Thr
                    70
<210> 5665
<211> 163
<212> PRT
<213> Enterobacter cloacae
<400> 5665
Asn Pro Asn Gln Ser Glu Ala Leu Gly Gly Thr Ile Ala Arg Gly Met
                                    10
Val Asn Thr Gln Thr Gly Gln Glu Glu Lys Lys Val Gly Thr Arg Arg
```

20 25 Ile Glu Arg Lys Lys Pro Pro Val Val Thr Gly Ala Glu Glu Lys Ala 40 Lys Gly Gln Asn Leu Ala Pro Lys Ala Glu Lys Ser Glu Ser Gly Ser 55 Pro Lys Glu Ser Arg Lys Ala Glu Lys Thr Glu Gln Ser Ile Gly Glu 70 75 Glu Ala Val Lys Thr Arg Gly Lys Ile Gln Arg Gln Gln Ile Gln Asp 85 90 Gly Gln Lys Ala Ala Ser Gln Val Asn Ala Gln Gln Ala Asn Glu Ile 105 Gly Leu Gly Lys Pro Glu Asp Phe Thr Gln Ile His Gln Ala Ala Arg 120 Ile Gly Lys Pro His Ile Thr Ser Pro Thr Phe Asn Val Gln Ala Met 135 140 Met Leu Ile Ala Pro Gly Leu His Leu Ala Thr Gly Arg Ile Arg Ala 150 155 Tyr Val Ser

<210> 5666 <211> 89 <212> PRT

<213> Enterobacter cloacae

<210> 5667 <211> 131 <212> PRT <213> Enterobacter cloacae

<400> 5667 Pro Ala Thr Ala Gly Tyr Ala Arg Arg Val Glu Asn Asn Met Ser Ala Asp Glu Asn Asn Leu Ile Trp Ile Asp Leu Glu Met Thr Gly Leu Asp 25 Pro Glu Arg Asp Arg Ile Ile Glu Ile Ala Thr Leu Val Thr Asp Ala 40 Asn Leu Asn Ile Leu Ala Glu Gly Pro Thr Ile Ala Val His Gln Ser 55 Asp Asp Gln Leu Ala Leu Met Asp Glu Trp Asn Val Arg Thr His Thr 70 75 Gly Ser Gly Leu Val Glu Arg Val Lys Ala Ser Thr Leu Gly Asp Arg 85 90 Glu Ala Glu Leu Ala Thr Leu Glu Phe Leu Lys Gln Trp Val Pro Ala 105 Gly Lys Ser Pro Ile Cys Gly Gln Gln His Trp Ser Gly Ser Ser Phe 120

```
Pro Val
   130
<210> 5668
<211> 225
<212> PRT
<213> Enterobacter cloacae
<400> 5668
Pro Leu Pro Leu Ser Trp Gln Ser Val Val Lys Thr Ser Ala Thr Phe
                                    10
Phe Thr Asn Ile Thr Leu Gly Lys Leu Ser Leu Leu Phe Leu Ala Leu
                                25
            20
Gly Val Ala Tyr Ala Ala Ile Arg Arg Thr Leu Leu Ile Val Tyr Pro
                                                 45
Pro Ile Leu Ser Asp Gly Leu Phe Asn Phe Val Val Met Gln Thr Leu
Phe Tyr Ile Pro Phe Phe Leu Ile Gly Ala Leu Ala Phe Ile His Pro
                    70
                                        75
Arg Leu Lys Ala Leu Phe Thr Thr Pro Ser Pro Trp Cys Ala Val Gly
                85
                                    90
Ala Ala Leu Ala Phe Ala Ala Tyr Leu Leu Asn Gln Arg Tyr Gly Ser
            100
                                105
                                                     110
Gly Asp Ala Trp Met Tyr Glu Thr Glu Ser Val Ile Thr Met Leu Met
                            120
Gly Leu Trp Met Val Asn Val Val Phe Ala Leu Gly His Arg Leu Leu
                        135
                                            140
Asn Phe Lys Ser Ser Arg Val Thr Tyr Phe Val Asn Ala Ser Leu Phe
                    150
                                        155
Ile Tyr Leu Val His His Pro Leu Thr Leu Phe Phe Gly Ala Tyr Ile
                                    170
Thr Pro His Ile Ala Ser Asn Ala Leu Gly Phe Phe Thr Gly Leu Val
                                185
                                                     190
Phe Val Val Gly Ile Ala Ile Val Leu Tyr Glu Ile His Leu Arg Ile
                            200
Pro Leu Leu Arg Phe Leu Phe Ser Gly Lys Pro Gln Val Lys Ala Gly
                        215
225
<210> 5669
<211> 215
<212> PRT
<213> Enterobacter cloacae
<400> 5669
Arg Arg Phe Val Pro Val Gly Leu Pro Val Thr Asp Val Leu Phe Ala
                                    10
Ala Val Ile Leu Ile Leu Pro Val Gly Tyr Ile Gly Glu Lys Gly Gly
                                25
Leu Gln Arg Val Phe Met Arg Pro Gln Ile Asp Val Ile His Gly Asp
                            40
Ile Thr Thr Val Arg Val Asp Val Ile Val Asn Ala Ala Asn Ser Ser
                        55
                                            60
Leu Met Gly Gly Gly Val Asp Gly Ala Ile His Arg Ala Ala Gly
                    70
                                        75
Pro Gln Leu Leu Glu Ala Cys Lys Thr Val Arg Gln Gln Gln Gly Glu
                                    90
Cys Pro Pro Gly His Ala Val Ile Thr Leu Ala Gly Asp Leu Pro Ala
```

100 105 110 Lys Ala Val Ile His Thr Val Gly Pro Val Trp His Gly Gly Asp Arg

305

115 120 125 His Glu Ala Glu Ile Leu Glu Gln Ala Tyr Arg Asn Cys Met Arg Leu 135 140 Ala Ala Asp Asn Gly Tyr Lys Thr Met Ala Phe Pro Ala Ile Ser Thr 150 155 Gly Val Phe Gly Tyr Pro Lys Glu Ala Ala Ala Thr Ile Ala Val Asn 170 Thr Val Tyr Gln Tyr Leu Ser Leu Lys Pro Met Pro Glu Lys Val Ile 185 Phe Val Cys Phe Asp Glu His Thr Ala Asp Leu Tyr Gln Arg Ile Leu 195 200 Thr Ala Arg Ser Gln Ala Phe 210 <210>.5670 <211> 308 <212> PRT <213> Enterobacter cloacae <400> 5670 Ser Pro Cys Ile Ile Ala Thr Leu Phe Ala Pro Glu Pro Ser Asp Val 10 Ile Pro Phe Pro Arg Ser Leu Glu Gln Ala Val Ala Pro Phe Arg 20 25 Asp Phe Phe Gly Arg Asn Asn Ala Trp Leu Ile Leu Leu Ile Val 40 Leu Tyr Lys Leu Gly Asp Ala Phe Ala Met Ser Leu Thr Thr Thr Phe Leu Ile Arg Gly Val Gly Phe Asp Ala Gly Glu Val Gly Val Val Asn 70 Lys Thr Leu Gly Leu Phe Ala Thr Ile Val Gly Ala Leu Tyr Gly Gly Val Leu Met Gln Arg Leu Ser Leu Phe Arg Ala Leu Leu Ile Phe Gly 105 Ile Leu Gln Gly Ala Ser Asn Ala Gly Tyr Trp Leu Leu Ser Ile Thr 120 Asp Lys His Met Ile Ser Met Ala Thr Ala Val Phe Phe Glu Asn Leu 135 140 Cys Gly Gly Met Gly Thr Ala Ala Phe Val Ala Leu Leu Met Thr Leu 150 155 Cys Asn Lys Ser Phe Ser Ala Thr Gln Phe Ala Leu Leu Ser Ala Leu 170 165 Ser Ala Val Gly Arg Val Tyr Val Gly Pro Val Ala Gly Trp Phe Val 185 190 Glu Ala His Gly Trp Pro Thr Phe Tyr Leu Phe Ser Val Val Ala Ala 200 205 Val Pro Gly Ile Leu Leu Leu Val Cys Arg Gln Thr Leu Glu Tyr 215 220 Thr Gln Arg Thr Glu His Phe Met Pro Arg Thr Glu Tyr Gln Ala Ala 230 235 Tyr Arg Phe Ala Leu Arg Leu Leu Met Ala Gly Cys Leu Ala Leu Val 245 250 · Val Trp Leu Ala Val Leu Ile Ile Asn Ala Thr Thr Leu Ser Leu 265 Pro Phe Glu Thr Gln Leu Leu Asp Ala Gly Val Phe Leu Ala Ile Val 280 Gly Ile Leu Thr Gly Gly Met Leu Asp Phe Met Ser Leu Arg Lys Thr 295 Gln Met Thr

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<210> 5671
<211> 335
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(333)
<400> 5671
Met Ala Asn Tyr Thr Val Asp Glu Phe Ile Ile Gln Leu Gly Phe Asn
Glu Thr Val Ser Lys Asn Leu Gln Lys Leu Glu Ser Arg Thr Leu Lys
                                25
Val Ala Glu Arg Ile Glu Lys Asn Leu Asn Arg Ala Phe Thr Pro Lys
Gly Asp Phe Gly Arg Val Ile Ser Ser Ala Asn Asn Ala Ser Lys Gln
                        55
Ile Asn Arg Ala Phe Ser Lys Ser Met Asn Phe Asp Glu Ala Gly Lys
                  . 70
                                        75
Ser Ser Val Lys Ser Val Glu Asn Ala Ala Lys Ala Ser Ala Lys Arg
                85
                                    90
Ile Lys Asp Met Tyr Gln Asp Ala Tyr Gly Ala Lys Gly Lys Gly Arg
            100
                                105
Ser Asn Pro Pro Ala Ala Gly Lys Pro Gln Gly Arg Gly Ser Asp Leu
                            120
Thr Ala Ala Asn Ser Ile Arg Ser Leu Ala Asn Thr Gln Phe Tyr Ser
                        135
                                             140
Asn Leu Thr Arg Arg Leu Glu Gly Met Gly Ser Thr Gly Gln Ala Arg
                    150
                                        155
Ala Met Lys Leu Arg Gln Gln Val His Gly Leu Arg Asp Asp Ala Leu
                165
                                    170
Ala Asn Pro Ser Ala Ser Leu Asn Gln Phe Arg Leu Ala Leu Arg Ala
            180
                                185
Ala Thr Asp Ser Ala Ser Lys Trp Ala Ser Gln Asn Arg Lys Gln Val
                            200
                                                 205
Ser Asn Ala Glu Gly Leu Ser Ser Phe Gly Arg Leu Val Ser Val
                        215
                                             220
Ser Ala Ala Leu Tyr Gly Thr Phe Glu Ala Val Arg Lys Val Val Glu
                    230
                                        235
Thr Gly Val Ala Arg Glu Gly Val Asn Leu Ser Ala Glu Ala Val Phe
                                    250
Lys Gly Gln Ser Lys Asn Ala Lys Thr Phe Ala Ala Gln Phe Ser Asp
                                265
Gln Ile Gly Gln Gly Val Thr Glu Thr Leu Lys Gln Tyr Thr Gly Phe
                            280
Ala Ala Gly Ala Gln Asn Ser Leu Gly Tyr Gln Gly Thr Gln Asp Phe
                        295
                                            300
Tyr Lys Asn Ala Ala Val Phe Gly Arg Ile Arg Gly Leu Asp Ala Glu
                    310
                                        315
Gln Arg Thr Gly Ile Met Ile Phe Thr Ser Arg Ala Xaa Ser
                325
                                    330
                                                         335
<210> 5672
<211> 390
<212> PRT
<213> Enterobacter cloacae
<400> 5672
Asn Lys Leu Asn Ser Gly Ile Arg Arg Val Leu Thr Gly Val Phe Lys
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Val Ile Ile Arg Tyr Leu Val Arg Glu Thr Leu Lys Ser Gln Leu
                                25
Ala Ile Leu Phe Ile Leu Leu Leu Ile Phe Phe Cys Gln Lys Leu Val
                            40
Arg Ile Leu Gly Ala Ala Val Asp Gly Glu Ile Pro Thr Asn Leu Val
                        55
Leu Ser Leu Leu Gly Leu Gly Val Pro Glu Met Ala Gln Leu Ile Leu
                    70
Pro Leu Ser Leu Phe Leu Gly Leu Leu Met Thr Leu Gly Lys Leu Tyr
Thr Glu Ser Glu Ile Thr Val Met His Ala Cys Gly Leu Ser Lys Ala
                                105
Val Leu Val Lys Ala Ala Met Val Leu Ala Leu Phe Thr Gly Ile Val
                            120
                                                125
        115
Ala Ala Val Asn Val Met Trp Ala Gly Pro Thr Ser Ser Arg His Gln
                        135
                                            140
Asp Glu Val Leu Ala Glu Ala Lys Ala Asn Pro Gly Leu Ala Ala Leu
                    150
                                        155
Ala Gln Gly Gln Phe Gln Gln Ala Thr Asp Gly Asn Ser Val Leu Phe
                165
                                    170
Ile Glu Ser Val Asp Gly Asn Arg Phe Asn Asp Val Phe Leu Ala Gln
                                185
Leu Arg Pro Lys Gly Asn Ala Arg Pro Ser Val Val Val Ala Asp Ser
                            200
Gly Gln Leu Ser Gln Arg Lys Asp Gly Ser Gln Val Val Thr Leu Asn
                        215
                                            220
Lys Gly Thr Arg Phe Glu Gly Thr Ala Met Leu Arg Asp Phe Arg Ile
                    230
                                        235
Thr Asp Phe Gln Asn Tyr Gln Ala Ile Ile Val His Gln Ala Val Ala
                                    250
Leu Asp Pro Thr Asp Thr Glu Gln Met Asp Met Arg Thr Leu Met Asn
                                265
Thr Asp Thr Asp Arg Ala Arg Ala Glu Leu His Trp Arg Ile Thr Leu
                            280
Val Phe Thr Val Phe Met Met Ala Leu Met Val Val Pro Leu Ser Val
                        295
                                            300
Val Asn Pro Arg Gln Gly Arg Val Leu Ser Met Leu Pro Ala Met Leu
                    310
Leu Tyr Leu Val Phe Phe Leu Leu Gln Thr Ser Ile Lys Ser Asn Gly
                                    330
Gly Lys Gly Lys Ile Asp Pro Met Ile Trp Thr Trp Val Val Asn Gly
                                345
Leu Tyr Leu Leu Ala Val Gly Leu Asn Leu Trp Asp Thr Val Pro
                            360
                                                365
Val Arg Arg Leu Arg Ala Arg Phe Thr Arg Lys Gly Ser Ser Pro Arg
                     . 375
Gly Gly Arg Thr Ala Ser
<210> 5673
<211> 252
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(224)
<400> 5673
Arg Glu Arg Thr Asn Gly Asp Thr Met Thr Leu Pro Ser Phe Ile Asn
```

```
Ala Ser Pro Ala Leu Pro Ala Thr Gly Gln Ser Ala Gly Leu Asp Tyr
            20
                                25
Gly Arg Ala Leu Ser Leu Arg Glu Met Ala Arg His Tyr Thr Glu Leu
                            40
                                                45
Pro Lys Tyr Leu Leu Ala Pro Glu Val Ala Gly Leu Leu His Phe Val
                        55
Gln Asp Trp Gly Gln His Ala Phe Phe Asn Thr Leu Trp Asn Thr Gly
                                        75
                    70
Ala Arg Leu Asn Glu Gly Leu Ala Leu Arg Arg Asp Phe His Leu
                                    90
Asn Glu Ser Ile Pro His Val Val Leu Arg Thr Ala Lys Gln Arg Arg
                                105
            100
Ala Gly Gly Arg Pro Arg Lys Gly Lys Ser Ala Asn Arg Val Val
                            120
        115
                                                125
Pro Leu Ser Asp Pro Ala Tyr Val Asp Glu Met Arg Arg Leu Phe Ala
                        135
                                            140
Ser Thr Lys Glu Gln Phe Glu Asp Asp Pro Ile Thr Gly Glu Arg Arg
                    150
                                        155
Ala Gln Pro Val Trp Asn Val Ser Asp Arg Thr Val Arg Asn Trp Leu
                165
                                    170
                                                        175
Val Arg Ala Thr Asp Ala Ala Asp Arg Asp Gly Val Arg Leu Ser Ile
            180
                                185
                                                    190
Asp Val Ser Pro His Thr Phe Arg His Ser Phe Ala Met His Leu Leu
                            200
Tyr Gly His Val His Pro Lys Val Leu Gln Gly Leu Leu Gly His Xaa
    210
                        215
                                            220
Lys Phe Glu Ser Thr Glu Val Tyr Thr Lys Ile Phe Ala Leu Asp Val
                    230
                                        235
Ala Ala Ser Gln Gln Leu Arg Phe Thr Leu Asp Thr
                245
                                    250
<210> 5674
<211> 317
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<212> PRT

<213> Enterobacter cloacae

<220>

<221>UNSURE

<222>(313)

<400> 5674

Asn Ala Thr Gly Lys His Leu Pro Glu Gly Gly Val Cys Ile Leu Pro 10 Glu Leu Lys Met Ser Asn Ala Ala Met Lys Leu Asn Glu Thr Ser Ser Asp Ala Tyr Glu Lys Leu Glu Ala Leu Leu Ser Pro Asp Val Ile Lys 40 4.5 Leu Lys His Tyr Val Asp Lys Gly Glu Tyr Leu Leu Val Leu Ala Lys 55 Asp Leu Phe Gly Ile Pro Glu Met Asp Pro Lys Met Ala Val Pro Val 75 Phe Lys Thr Lys Thr Ser Tyr Arg Ala Pro Leu Asn Lys Asp Tyr Ile 85 90 Pro Asn Pro Arg Ile Leu Glu Gln Val Val Lys Leu Leu Ile Ser Pro 105 Asp Ile Asp Leu Ser Val Cys Leu Lys Gly Glu Ser Gly Ser Gly Lys 120 125 Thr Glu Met Val Met Tyr Ile Ser His Met Met Asn Trp Pro Leu Thr 135 Ile Lys Gln Ile Asn Ser Asn Ile Arg Val Asp Glu Leu Glu Gly Glu 155

```
Arg Ser Leu Asn Gly Gly Asn Thr Gly Phe Val His Ser Asp Leu Val
                                    170
                165
Thr Gly Phe Arg Asn Gly His Leu Ile Leu Leu Asp Glu Val Asp Lys
            180
                                185
Ile Asp Pro Asp Thr Ala Ala Lys Leu His Met Pro Ile Glu Arg Lys
                            200
                                                 205
Pro Trp Ser Leu Ser Ala Asn Gly Gly Glu Val Ile Thr Ala Asn Gly
                                             220
                        215
    210
Tyr Thr Arg Phe Ile Gly Thr Ala Asn Thr Asn Met Ser Gly Gly Ala
                    230
                                         235
Arg Arg Phe Val Ser Ser Gln Arg Gln Asp Ala Ala Phe Ile Lys Arg
                                     250
                245
Phe Leu Ile Val Glu Met Glu Lys Pro Asp Lys Val Ala Leu Thr Asn
                                                     270
            260
                                265
Val Leu Thr Lys Arg Tyr Ser Ser Leu Pro Phe Gln Val Ile Glu Lys
                            280
Phe Val Arg Val Ala Ile Ala Val Asn Asp Ser Gly Thr Glu Asp Ser
                        295
                                             300
Val Met Asp Ile Arg Gln Leu Val Xaa Trp Val Gly Thr
                    310
<210> 5675
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 5675
Val Leu Glu Val Lys Thr Ala Gln Met Gly His Glu Ser Thr Arg Phe
                                    10
Thr Arg Leu Val Glu Asn Leu Asn Tyr Ala Val Glu Asn Leu Val Pro
                                25
Thr Phe Gly Ser His Arg Ile Thr Gln Gln Gln Ser Ala Ala Leu Gly
        35
                            40
Arg Thr Ala Thr Gln Pro Ala Asn Gln Lys Ala Ile Ala Asn Leu Val
                        55
Tyr Gly Gly Glu Trp Gly Lys Glu His Leu Gly Asn Gln Val Ala Gly
                    70
                                         75
Asp Gly Trp Lys Tyr Arg Gly Arg Gly Leu Lys Gln Ile Thr Gly Leu
                                     90
                85
Ser Asn Tyr Arg Ser Cys Gly Gln Ala Leu Lys Leu Asp Leu Val Thr
                                105
            100
His Pro Glu Leu Leu Glu Lys Asp Glu Tyr Ala Ala Arg Ser Ala Ala
                                                 125
                            120
Trp Phe Tyr Ala Ser Arg Gly Cys Leu Leu His Ser Gly Asp Val Glu
                        135
                                             140
Arg Val Thr Leu Leu Ile Asn Gly Gly Arg Asn Gly Leu Asp Lys Arg
                    150
                                         155
Arg Ala Leu Phe Asn Leu Ala Lys Ser Val Leu Val
                165
<210> 5676
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 5676
Trp Arg Asn Cys Val Arg Ile Glu Thr Ser Leu Phe Thr Thr Pro Glu
                                    10
Cys Met Lys Ala Ile Thr Leu Tyr Asp Val Ala Arg Val Ala Gly Val
```

```
40
Lys Lys Lys Lys Lys Val Arg Gln Ala Met Ala Ala Leu His Tyr
                        55
                                            60
Val Pro Asn Arg Gly Ala Gln Gln Leu Ala Gly Lys Arg Thr Arg Thr
                    70
                                        75
Leu Gly Leu Met Thr Ser Asp Leu Ala Leu His Ala Pro Ser Gln Ile
Ala Ser Ala Val Lys Ser Arg Leu His His Gly Ala Gly Arg Phe Arg
                                105
Ala Lys Arg
        115
<210> 5677
<211> 114
<212> PRT
<213> Enterobacter cloacae
<400> 5677
Phe Pro Glu Leu Thr Ser Leu Pro Val Arg Ile Thr Leu Met Val Ser
Gly Ile Val Val Asn Ala Leu Ala Thr Gly Met Tyr Ile Gly Ala Gly
Phe Gly Ala Gly Pro Arg Asp Gly Leu Met Thr Gly Ile His Ala Arg
Leu Gly Trp Ser Ile Arg Ser Val Arg Thr Ala Ile Glu Val Thr Val
                        55
Leu Ile Val Gly Tyr Leu Leu Gly Gly Ala Phe Gly Val Gly Thr Val
Leu Tyr Ala Leu Thr Ile Gly Pro Leu Ile Gln Leu Cys Leu Pro Trp
Phe Arg Gln Arg Pro Arg Ile Gln Lys Ala Ala Gln Pro Glu Arg Ile
                                105
Val
<210> 5678
<211> 370
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(341)
<400> 5678
Ser Leu His Ile Cys Val Lys Val Gly Phe Gln Cys Lys Lys Val Ile
                                    10
Thr Met Asn Leu Glu Lys Ile Ala Leu Val Gly Gln Arg Met Lys
Ser Glu Gln Ile Ser Leu Lys Glu Ser Leu Met Ala Ser Ser Arg Val
Ser Val Ser Asp Asp Ser Val Asp Gly Val Asp Arg Leu Ile Tyr Asn
His Cys Leu Asn Lys Lys Asn Leu Ser Asp Phe Phe Gly Lys Ser Arg
                                        75
Val Thr Phe Asn Lys Ile Leu Ser Asp Leu Glu Glu Lys Glu Leu Val
                85
                                    90
Gly Ala Pro Ile Tyr Gln Asn Lys Asn His Leu Tyr Thr Arg Trp Asp
                               105
Val Gln Lys Ile Met Asp Ala Leu Gly Tyr Pro Lys Tyr Arg Asp His
```

```
Tyr Phe Ser Arg Ala Ile Val Thr Gln Asn His Lys Gly Gly Thr Gly
                                           140
                       135
Lys Ser Thr Thr Ser Val Ala Leu Ala Val Ala Ala Leu Asp Leu
                   150
                                       155
Gln Leu Asn Ala Arg Val Leu Met Ile Glu Trp Asp Pro Gln Gly Ser
                                  170
               165
Ile Gly Ser Ser Met Ile Gln Ser Val Ser Glu Asp Asp Val Phe Leu
           180
                               185
                                                   190
Thr Ala Ile Asp Ala Ile Leu Gly Ile Tyr Glu Glu Asn Ser Glu Tyr
                           200
Lys Lys Tyr Leu Asp Ser Gly Phe Ser Glu Glu Glu Ile Ile Thr Asn
                       215
                                            220
Met Pro Phe Ser Thr His Leu Pro Asn Leu Asp Val Ile Thr Ala Phe
                   230
                                       235
Pro Thr Asp Ala Arg Phe Lys Asp Lys Tyr Trp Gln Cys Ser Arg Glu
                245
                                    250
Glu Arg Thr Ser Leu Leu Arg Phe Lys Glu Val Ile Leu Pro Val
                               265
Leu Lys Gln Asn Tyr Asp Leu Ile Ile Asp Thr Pro Pro Glu Asp
                           280
       275
                                                285
Ser Pro Leu Ile Trp Ala Ala Asp Glu Ala Asp Gly Ile Leu Val
                       295
                                            300
Ala Val Ser Pro Arg Glu Tyr Asp Tyr Ala Ser Thr Thr Asp Phe Met
                    310
                                        315
Leu Thr Ile Ser Glu Arg Cys Lys Gln Ser Pro Ser Lys Gly Asp Asn
                                    330
                                                        335
                325
Leu Lys Trp Phe Xaa Val Leu Ala Val Asn Val Asn Asp Lys Ser Pro
                                                   350
            340
                                345
Tyr Glu Arg Ile Val Leu Asp Lys Leu Ile Lys Thr Val Gln Gly Pro
       355
                           360
Phe
   370
<210> 5679
<211> 352
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(344)
<400> 5679
Arg Leu Leu Asp Pro Gly Asn Phe Ala Thr Asn Ile Gln Ala Gly Ala
Ser Phe Gly Tyr Lys Leu Leu Trp Val Val Trp Ala Asn Leu Met
                               25
Ala Met Leu Ile Gln Met Leu Ser Ala Lys Leu Gly Ile Ala Thr Gly
Lys Asn Leu Ala Glu Gln Ile Arg Asp His Tyr Pro Arg Pro Ala Val
                       55
Trp Phe Tyr Trp Val Gln Ala Glu Ile Ile Ala Met Ala Thr Asp Leu
                   70
                                       75
Ala Glu Phe Ile Gly Ala Ala Ile Gly Phe Lys Leu Ile Leu Gly Val
               85
                                   90
Ser Leu Leu Gln Gly Ala Val Leu Thr Gly Ile Ala Thr Phe Leu Ile
           100
                               105
Leu Met Leu Gln Arg Arg Gly Gln Lys Pro Leu Glu Lys Val Ile Gly
                           120
                                               125
Gly Leu Leu Phe Val Ala Ala Tyr Ile Val Glu Leu Ile Phe
                       135
```

```
Ser Gln Pro Asn Leu Ala Gln Leu Thr Lys Gly Met Val Ile Pro Ser
                    150
                                         155
Leu Pro Thr Ser Glu Ala Val Phe Leu Ala Ala Gly Val Leu Gly Ala
                                     170
                165
Thr Ile Met Pro His Val Ile Tyr Leu His Ser Ser Leu Thr Gln Asn
            180
                                185
                                                    190
Leu His Gly Gly Thr Ser Lys Glu Arg Tyr Ser Ala Ser Lys Trp Asp
                             200
                                                 205
Val Ala Ile Ala Met Thr Ile Ala Gly Phe Val Asn Leu Ala Met Met
                         215
                                             220
Ala Thr Ala Ala Ala Phe His Phe Asn Gly His Thr Gly Val Ala
                     230
                                         235
Asp Leu Asp Gln Ala Tyr Leu Thr Leu Glu Pro Leu Leu Ser His Ala
                 245
                                     250
Ala Ala Thr Ile Phe Gly Leu Ser Leu Val Ala Ala Gly Leu Ser Ser
             260
                                 265
Thr Val Val Gly Thr Leu Ala Gly Gln Val Val Met Gln Gly Phe Val
                             280
                                                 285
Arg Phe His Ile Pro Leu Trp Val Arg Arg Ser Val Thr Met Leu Pro
                         295
                                             300
Ser Phe Val Val Ile Leu Met Gly Leu Asp Pro Thr Arg Ile Leu Val
                     310
                                         315
Met Ser Gln Val Leu Leu Ser Phe Gly Ile Ala Leu Ala Leu Val Pro
                 325
                                     330
Leu Leu Ile Phe Asp Val Ile Xaa Pro Gly Met Glu Gly Ser Ala Leu
             340
                                 345
<210> 5680
<211> 357
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(354)
<400> 5680
Thr Asp Glu Arg Ile Leu Thr Met Ser Asn Val Phe Tyr Met Pro Pro
                                     10
Val Thr Leu Met Gly Leu Asn Ala Ile Arg Leu Leu Gly Asp Glu Leu
·Val Ser Arg Glu Leu Lys Lys Ala Leu Ile Val Thr Asp Arg Val Leu
                             40
Ala Asp Thr Gly Leu Val Asn Lys Leu Thr Asp Glu Leu Glu Ala His
Lys Ile Ser Tyr Ala Ile Phe Asp Gly Val Gln Pro Asn Pro Thr Glu
                                         75
Lys Asn Ile Asp Asp Gly Leu Ala Leu Leu Ala Lys Ser Asn Ala Asp
                                     90
                8.5
Phe Val Ile Ser Phe Gly Gly Ser Ser His Asp Thr Ala Lys Gly
                                 105
            100
Ile Ala Leu Val Ala Thr Asn Gly Gly His Ile Arg Asp Tyr Ser Lys
        115
                             120
                                                 125
Gly Val His Leu Ser Lys Lys Pro Gln Leu Pro Leu Val Thr Val Asn
                        135
                                             140
Thr Thr Ala Gly Thr Ala Ser Glu Met Thr Val Phe Ala Ile Val Thr
                    150
                                         155
Asn Gln Glu Asp Glu Thr Lys Tyr Pro Val Val Asp Lys His Phe Thr
                165
                                    170
Pro Ile Ile Ala Val Asn Asp Ser Glu Leu Met Val Ala Met Pro Ala
```

```
Phe Leu Thr Ala Thr Thr Gly Met Asp Ala Leu Thr His Ala Ile Glu
       195
                            200
Ala Tyr Val Ser Thr Ala Ala Thr Pro Val Thr Asp Ala Cys Ala Ile
                        215
                                            220
Lys Ala Ile Glu Ile Ile Val Asn Asn Leu Lys Asp Val Val Asp Asp
                    230
                                        235
Gly Gln Asn Arg Glu Ala Arg Asp Ala Met Gln Tyr Gly Glu Tyr Leu
                245
                                    250
Ala Gly Met Ala Phe Ser Asn Ala Ser Leu Gly Tyr Val His Ser Met
                                265
Ala His Gln Leu Gly Gly Val Tyr Asn Leu Ser His Gly Leu Cys Asn
                                 .
                            280
                                                285
Ala Ile Leu Leu Gly Glu Val Ser Arg Phe Asn Ala Lys Lys Val Pro
                        295
Asp Arg Phe Val Glu Ile Ala Arg Ala Met Gly Ile Asp Val Ser Thr
                    310
                                        315
Met Thr Gln Glu Gln Ala Ile Asn Ser Ala Ile Glu Ala Ile Glu Met
                                    330
                325
Leu Ser Gln Lys Val Gly Thr Asn Gln Arg Leu Ala Asp Arg Ala Ser
                                345
            340
Arg Xaa Ser Pro
       355
<210> 5681
<211> 179
<212> PRT
<213> Enterobacter cloacae
<400> 5681
Gly Pro Lys Asp Leu Phe Pro Gln Lys Cys Asp Arg Val Met Ile Asp
                                    10
Ala Ser Ser Val Val Ile Gly Asp Val Arg Met Ala Asp Asp Val Ser
            20
                                                     30
Ile Trp Pro Leu Val Ala Ile Arg Gly Asp Val Asn Tyr Val Ala Ile
                                                45
        35
                            40
Gly Ala Arg Thr Asn Ile Gln Asp Gly Ser Val Leu His Val Thr His
                        55
Lys Ser Ser Tyr Asn Pro Glu Gly Asn Pro Leu Ile Ile Gly Glu Asp
                    70
                                        75
Val Thr Val Gly His Lys Val Met Leu His Gly Cys Thr Ile Gly Asn
                85
                                    90
                                                         95
Arg Val Leu Val Gly Met Gly Ser Ile Leu Leu Asp Gly Val Ile Val
                                105
                                                    110
Glu Asp Asp Val Met Ile Gly Ala Gly Ser Leu Val Pro Gln Asn Lys
                            120
Arg Leu Glu Ser Gly Tyr Leu Tyr Leu Gly Ser Pro Ile Lys Gln Ile
Arg Pro Leu Lys Glu Ala Glu Ile Glu Gly Leu Lys Tyr Ser Ala Asn
                    150
Asn Tyr Val Lys Trp Lys Asn Asp Tyr Leu Asp Gln Asp Asn Gln Thr
                165
                                    170
Gln Pro
<210> 5682
<211> 66
<212> PRT
<213> Enterobacter cloacae
```

<400> 5682

Asn Ile Tyr Ala Tyr Asp Met Phe Tyr Gln Lys Gly Lys Thr Pro Phe

```
10
Leu Thr Trp Cys Glu Gln Gln Gly Ala Lys His Val Ala Asp Gly Leu
                                2.5
Gly Met Leu Val Gly Gln Ala Ala His Ala Val Leu Leu Trp His Gly
                            40
Val Leu Pro Ala Val Glu Pro Val Ile Glu Lys Leu Lys Lys Glu Leu
Met Val
65
<210> 5683
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 5683
Trp Ser Gly His Ala Gly Gly Ala Gly Gly Ser Cys Gly Ala Thr Leu
Ala Trp Arg Val Thr Cys Cys Arg Thr Gly Asp Arg Lys Ala Glu Lys
                                25
Gly Thr Asp Gly Met Asn Gln Ala Ile His Phe Pro Asp Arg Glu Ile
Trp Asp Glu Asn Lys Gln Ala Val Cys Phe Pro Val Leu Val His Gly
                        55
                                            60
Met Gln Leu Thr Cys Ala Ile Lys Gly Glu Thr Leu Leu Gln Arg Phe
                    70
Gly Gly Ser Asp Pro Leu Ala Val Phe Cys Glu Asn Arg Trp Asp Leu
                85
                                    90
Glu Glu Glu Ala Ser Asp Leu Ile Arg Val Gln Glu Asp Asp Gln
            100
                                105
Gly Trp Val Trp Leu Ser
        115
<210> 5684
<211> 66
<212> PRT
<213> Enterobacter cloacae
<400> 5684
Ser Thr His Tyr Ala Gln Arg Lys Leu Gly Gly Arg Trp Gln Leu Arg
Gln Asn Phe Val Tyr Leu Val Ala Ile Phe Ala His Ile His Asn Leu
Trp Ser Val Lys Ile Leu Ser Pro Gln Pro Val Ile Tyr Ala Leu Met
                            40
                                                 45
Ala Leu Ala Leu Leu Ala Trp Arg Tyr Lys Lys Phe Arg Gln Trp Leu
Arg
65
<210> 5685
<211> 174
<212> PRT
<213> Enterobacter cloacae
<400> 5685
Lys Gly Asp Asn Cys Ala Leu Arg Val Tyr Val Val Phe Tyr Pro Lys
Ile Ala Gly Asp Ser Gly Ile Met Ala Asp Lys Phe Gln Ile Leu Val
Leu Asn Gly Pro Asn Leu Asn Met Leu Gly Thr Arg Glu Pro Glu Lys
```

40 Tyr Gly Thr Leu Thr Leu Ser Glu Ile Val Asn Arg Leu Ser Thr Glu Ala Ala Ser Leu Asn Val Asp Leu Asp His Phe Gln Ser Asn Ala Glu 70 Tyr Ala Ile Ile Asp Arg Ile His Gln Ala Lys Asp Thr Val Asp Tyr 85 Ile Leu Ile Asn Pro Ala Ala Phe Thr His Thr Ser Val Ala Ile Arg 105 Asp Ala Leu Leu Ala Val Ser Ile Pro Phe Ile Glu Ile His Leu Ser 120 125 Asn Val His Ala Arg Glu Pro Phe Arg His His Ser Tyr Leu Ser Asp 140 135 Ile Ala Ala Gly Val Ile Cys Gly Leu Gly Ala Asp Gly Tyr Ser Tyr 150 155 Ala Leu Gln Thr Ala Val Lys Arg Leu Ser Gln Ser His <210> 5686 <211> 197 <212> PRT <213> Enterobacter cloacae <400> 5686 Gln Arg His Thr Pro Ala Ala Lys Asn Trp His Pro Tyr Cys Lys Thr Cys Leu Thr Thr Gln Pro Leu Pro Ala Arg Tyr Phe Arg Thr Gly Gly Asn Met Asn Leu Arg Arg Leu Lys Tyr Phe Val Lys Ile Val Asp Ile 40 Gly Ser Leu Thr Gln Ala Ala Glu Val Leu His Ile Ala Gln Pro Ala 55 Leu Ser Gln Gln Val Ala Thr Leu Glu Gly Glu Met Asp Gln Gln Leu 75 70 Leu Ile Arg Thr Lys Arg Gly Val Thr Pro Thr Glu Ala Gly Lys Ile 8.5 90 Leu Tyr Thr His Ala Arg Thr Ile Leu Arg Gln Cys Glu Gln Ala Gln 100 105 Leu Ala Val His Asn Val Gly Gln Thr Leu Ser Gly His Val Ser Ile 120 125 Gly Leu Ala Pro Gly Thr Ala Ala Ser Ser Val Thr Met Pro Leu Leu 135 140 Gln Ala Val Arg Ala Glu Leu Pro Glu Val Leu Val Tyr Leu His Glu 155 150 Asn Ser Gly Ser Val Leu Asn Asp Lys Leu Leu Asn Gly Gln Leu Asp 170 165 Met Gly Gly Ala Val Arg Ser Leu Pro Gly Cys Arg Asp His Gln Pro 185 Ala Ala Ala Glu 195 <210> 5687 <211> 80 <212> PRT <213> Enterobacter cloacae <400> 5687 Leu Ile Asp Gln Pro Val Lys Val Thr Thr Glu Pro Asp Gly Ser Arg 10 Trp Val Glu Val His Glu Pro Leu Ser Arg Asn Arg Ala Glu Phe Glu

25

```
      Ser Thr Asn Lys Val Pro Leu Pro Ile Ser Ala Ala Gln Arg Thr Gln 35
      40
      45

      Leu Ile Ser Glu Gly Ala Gly Ala Glu Leu Glu Arg Arg Ser Gly Met 50
      55
      60

      Pro Val Lys Leu Ala Met Thr Gly Ser Ala Ser Leu Ala Gly Pro 65
      70
      75
      80
```

<210> 5688

<211> 114

<212> PRT

<213> Enterobacter cloacae

<400> 5688

 Pro
 Cys
 Arg
 Cys
 Phe
 Arg
 Arg
 Cys
 Glu
 Gln
 Ser
 Tyr
 Arg
 Lys
 Cys
 Trp

 Phe
 Ile
 Cys
 Met
 Arg
 Thr
 Val
 Val
 Pro
 Cys
 Ser
 Met
 Thr
 Asn
 Cys
 Ser
 Pro
 Val
 Ala

 Thr
 Val
 Ser
 Trp
 Ala
 Val
 Leu
 Tyr
 Asp
 Arg
 Ser
 Pro
 Val
 Ala

 Gly
 Ile
 Thr
 Ser
 Gln
 Pro
 Leu
 Leu
 Asp
 Leu
 Tyr
 Leu
 Tyr
 Leu
 Tyr
 Leu
 Tyr
 Leu
 Tyr
 Leu
 Ala
 Glu
 Ser
 Ile
 Asp
 Leu
 Tyr
 Leu
 Asp
 Leu
 Asp
 Leu
 Asp
 Asp

Asp Glu Thr Pro Ser Leu Arg Pro Leu Asn Ala Asn Asn Phe Leu Leu 100 105 110

Glu

<210> 5689 <211> 164

<212> PRT

<213> Enterobacter cloacae

<400> 5689

 Arg
 Asn
 Pro
 Leu
 Leu
 Pro
 Leu
 Pro
 Arg
 Leu
 Arg
 Leu
 Val
 Gln
 His
 Arg

 Ala
 Asp
 Arg
 Glu
 Lys
 Ile
 Ser
 Arg
 Pro
 Ser
 Arg
 Arg
 Arg
 Tyr
 Gln
 Glu
 Ala

 Gly
 Leu
 Ala
 Asp
 Lys
 Arg
 Ser
 Lys
 Met
 Leu
 Thr
 Met
 Trp
 Val
 Thr
 Glu

 Asp
 Glu
 His
 Arg
 Arg
 Leu
 Leu
 Glu
 Arg
 Cys
 Glu
 Gly
 Lys
 Gln
 Leu
 Ala

 Ala
 Trp
 Met
 Arg
 Glu
 Asp
 Glu
 Lys
 Pro
 Ala
 Arg
 Ala
 Gly

Pro Val Tyr Thr Pro Leu Ala Leu Arg Asp Trp Phe Arg Ala Ala Pro

10

85 90 95
Lys Leu Pro Ser Ile Ser Pro Ala Leu Leu Arg Gln Leu Ala Gly Met

Gly Asn Asn Leu Asn Gln Ile Ala Arg Gln Val Asn Ala Gly Gly Gly
115 120 125

Ser Gly His Asp Arg Val Gln Ile Val Ala Ala Leu Met Ala Ile Asp 130 135 140

Ala Gly Leu Glu Arg Leu Arg His Ala Val Leu Glu Lys Gly Ala Asp 145 150 155 160

Asp Asp Arg

```
<212> PRT
<213> Enterobacter cloacae
<400> 5690
Trp Pro Ser Met Pro Asp Ser Ser Gly Cys Gly Met Pro Tyr Trp Lys
                                    10
Arg Val Leu Met Met Ile Val Lys Phe His Pro Arg Gly Arg Gly Gly
                                25
Gly Gly Gly Pro Val Asp Tyr Leu Leu Gly Lys Asp Arg Gln Arg Asp
Gly Ala Ser Val Leu Gln Gly Lys Pro Asp Glu Val Arg Glu Leu Ile
                        55
Asp Ala Ser Pro Tyr Ala Lys Lys Tyr Thr Ser Gly Val Leu Ser Phe
                                        75
Ala Glu Gln Asp Leu Pro Pro Gly Gln Arg Glu Lys Leu Met Ala Ser
                                    90
                8.5
Phe Glu Arg Val Leu Met Pro Gly Leu Asp Lys Asp Gln Tyr Ser Val
            100
                                105
                                                     110
Leu Trp Val Glu His Arg Asp Lys Gly Arg Leu Glu Leu Asn Phe Leu
                            120
Ile Pro Asn Thr Glu Leu Leu Thr Gly Lys Arg Ile Gln Pro Tyr Tyr
                        135
                                            140
Asp Arg Ala Asp Arg Pro Arg Ile Asp Ala Trp Gln Thr Ile Val Asn
                    150
                                        155
Gly Arg Leu Gly Leu His Asp Pro Asn Ala Pro Glu Asn Arg Arg Val
                                    170
                                                         175
                165
Leu Val Ser Pro Ser Ala Leu Pro Glu Ala Lys Gln Glu Ala Ala Gln
            180
                                185
                                                     190
Ala Ile Thr Ser Gly Leu Leu Ala Leu Ala Ser Ser Gly Glu Leu Lys
                            200
                                                 205
Thr Arg Gln Asp Val Thr Glu Ala Leu Glu Ser Ala Gly Phe Glu Val
                        215
Val Arg Thr Thr Gln Gly Arg Ile
                    230
<210> 5691
<211> 464
<212> PRT
<213> Enterobacter cloacae
<400> 5691
Arg Met Ala Gly Asn Ile Asp Ile Pro Pro Ile Arg Ala Asp Lys Cys
                                    10
Leu Phe Phe Pro Thr Ile Asn Arg Glu Asn Ile Met Ser Val Val Pro
Val Ala Asp Val Leu Gln Gly Arg Val Ala Val Asp Gln Glu Val Thr
Val Arg Gly Trp Val Arg Thr Arg Arg Asp Ser Lys Ala Gly Ile Ser
Phe Leu Ala Val Tyr Asp Gly Ser Cys Phe Asp Pro Val Gln Ala Val
                                        75
Ile Asn Asn Ser Leu Pro Asn Tyr Asn Asp Asp Val Leu His Leu Thr
                85
                                    90
Thr Gly Cys Ser Val Ile Val Thr Gly Val Val Ala Ser Pro Gly
                                105
Gln Gly Gln Ser Tyr Glu Ile Gln Ala Thr Ser Val Glu Val Thr Gly
                            120
                                                125
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Trp Val Glu Asp Pro Asp Thr Tyr Pro Met Ala Ala Lys Arg His Ser

Ile Glu Tyr Leu Arg Glu Val Ala Gln Leu Arg Pro Arg Thr Asn Leu

140

155

135

Ile Gly Ala Val Ala Arg Val Arg His Thr Leu Ala Gln Ala Leu His 165 170 Arg Phe Phe Asp Glu Gln Gly Tyr Phe Trp Val Ser Thr Pro Leu Ile 180 185 Thr Ala Ser Asp Thr Glu Gly Ala Gly Glu Met Phe Arg Val Ser Thr 200 205 Leu Asp Met Glu Asn Leu Pro Arg Thr Pro Glu Gly Lys Val Asp Tyr 215 220 Asp Lys Asp Phe Phe Gly Lys Glu Ala Phe Leu Thr Val Ser Gly Gln 230 235 Leu Asn Gly Glu Thr Tyr Ala Cys Ala Leu Ser Lys Ile Tyr Thr Phe 250 Gly Pro Thr Phe Arg Ala Glu Asn Ser Asn Thr Ser Arg His Leu Ala 265 Glu Phe Trp Met Leu Glu Pro Glu Val Ala Phe Ala Asp Leu Asn Asp 280 Val Ala Gly Leu Ala Glu Ala Met Leu Lys Tyr Val Phe Lys Ala Val 295 300 Leu Glu Glu Arg Ala Asp Asp Met Lys Phe Phe Ala Glu Arg Val Asp 310 315 Asn Asp Ala Ile Ala Arg Leu Glu Arg Phe Val Ser Ala Asp Phe Ala 325 330 Gln Val Asp Tyr Thr Asp Ala Val Ala Ile Leu Glu Lys Cys Gly Glu 340 345 350 Lys Phe Glu Asn Pro Val Tyr Trp Gly Val Asp Leu Ser Ser Glu His 355 360 365 Glu Arg Tyr Leu Ala Glu Lys His Phe Lys Ala Pro Val Val Lys 375 370 380 Asn Tyr Pro Lys Asp Ile Lys Ala Phe Tyr Met Arg Leu Asn Glu Asp 390 395 Gly Lys Thr Val Ala Ala Met Asp Val Leu Ala Pro Gly Ile Gly Glu 405 410 Ile Ile Gly Gly Ser Gln Arg Glu Glu Arg Leu Asp Val Leu Asp Ala 420 425 430 Arg Met Gln Glu Met Gly Leu Asn Pro Ala Asp Tyr Ser Trp Tyr Arg 440 445 Asp Leu Ser Ser Pro Thr Gly Ala Gly Arg Ile Arg Ala Tyr Leu Thr 450 455

<210> 5692

<211> 189

<212> PRT

<213> Enterobacter cloacae

<400> 5692

Thr Thr Val Leu Pro Ala Gly Leu Gly Glu Asn Asn Thr Ile Ser Gly 10 Leu Leu Phe Leu Trp Val Pro Thr Arg Lys Thr Asn Phe Ile His Gly Glu Pro Leu Arg Gly Val Ile Thr Gln Ser Glu Asp Phe Arg Met Ala Lys Lys Val Gln Ala Tyr Val Lys Leu Gln Val Ala Ala Gly Met Ala 55 Asn Pro Ser Pro Pro Val Gly Pro Ala Leu Gly Gln Gln Gly Val Asn 70 75 Ile Met Glu Phe Cys Lys Ala Phe Asn Ala Lys Thr Glu Ser Met Glu 85 90 Lys Gly Leu Pro Ile Pro Val Val Ile Thr Val Tyr Ala Asp Arg Ser 100 105 110 Phe Thr Phe Val Thr Lys Thr Pro Pro Ala Ala Val Leu Leu Lys Lys 120

Ala Ala Gly Ile Lys Ser Gly Ser Gly Lys Pro Asn Lys Asp Lys Val 135 140 Gly Lys Ile Ser Arg Ala Gln Leu Gln Glu Ile Ala Gln Thr Lys Ala 150 155 Ala Asp Met Thr Gly Ser Asp Ile Glu Ala Met Thr Arg Ser Ile Glu 165 170 Gly Thr Ala Arg Ser Met Gly Leu Val Val Glu Asp <210> 5693 <211> 236 <212> PRT <213> Enterobacter cloacae <400> 5693 Glu Met Ala Lys Leu Thr Lys Arg Met Ser Val Ile Arg Asp Lys Val 10 Asp Ala Thr Lys Gln Tyr Asp Ile Asn Glu Ala Ile Ala Leu Leu Lys 20 25 Glu Leu Ala Thr Ala Lys Phe Val Glu Ser Val Asp Val Ala Val Asn 40 Leu Gly Ile Asp Ala Arg Lys Ser Asp Gln Asn Val Arg Gly Ala Thr 55 Val Leu Pro His Gly Thr Gly Arg Ser Val Arg Val Thr Val Phe Ala 70 75 Gln Gly Ala Asn Ala Glu Ser Ala Lys Ala Ala Gly Ala Glu Leu Val 85 90 Gly Met Glu Asp Leu Ala Asp Gln Ile Lys Lys Gly Glu Met Asn Phe 100 105 Asp Val Val Ile Ala Ser Pro Asp Ala Met Arg Val Val Gly Gln Leu 120 Gly Gln Val Leu Gly Pro Arg Gly Leu Met Pro Asn Pro Lys Val Gly 135 140 Thr Val Thr Pro Asn Val Ala Glu Ala Val Lys Asn Ala Lys Ala Gly 150 155 Gln Val Arg Tyr Arg Asn Asp Lys Asn Gly Ile Ile His Thr Thr Ile 165 170 Gly Lys Val Asp Phe Asp Ala Asp Lys Leu Lys Glu Asn Leu Glu Ala 185 Leu Leu Val Ala Leu Lys Lys Ala Lys Pro Thr Gln Ala Lys Gly Val 200 Tyr Ile Lys Lys Val Ser Ile Ser Thr Thr Met Gly Ala Gly Val Ala 215 Val Asp Gln Ala Gly Leu Ser Ala Ala Ala Asn 230 <210> 5694 <211> 105 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(98) <400> 5694 Ser Glu Phe Arg Asn Met Ser Ser Gly Lys His Pro Gly Ala Lys Leu 10 Met Ala Leu Asn Leu Gln Asp Lys Gln Ala Ile Val Ala Glu Val Ser

20 25 30 Glu Val Ala Lys Gly Ala Leu Ser Ala Val Val Ala Asp Ser Arg Gly

40 Val Thr Val Asp Lys Met Thr Glu Leu Arg Lys Ala Gly Arg Glu Ala 55 Gly Val Tyr Met Arg Val Val Arg Asn Thr Leu Leu Arg Arg Val Val 70 75 Glu Gly Thr Gln Phe Glu Cys Leu Lys Asp Thr Leu Val Gly Leu His His Xaa Ala Ala Gln Gly Pro Ala Ile 100 <210> 5695 <211> 128 <212> PRT <213> Enterobacter cloacae <400> 5695 Arg Ser Thr Lys Met Ile Gln Glu Gln Thr Met Leu Asn Val Ala Asp Asn Ser Gly Ala Arg Arg Val Met Cys Ile Lys Val Leu Gly Gly Ser His Arg Arg Tyr Ala Gly Val Gly Asp Ile Ile Lys Ile Thr Ile Lys Glu Ala Ile Pro Arg Gly Lys Val Lys Lys Gly Asp Val Leu Lys Ala Val Val Val Arg Thr Lys Lys Gly Val Arg Arg Pro Asp Gly Ser Val Ile Arg Phe Asp Gly Asn Ala Cys Val Ile Leu Asn Asn Asn Ser Glu 8.5 Gln Pro Ile Gly Thr Arg Ile Phe Gly Pro Val Thr Arg Glu Leu Arg 105 Thr Glu Lys Phe Met Lys Ile Ile Ser Leu Ala Pro Glu Val Leu <210> 5696 <211> 200 <212> PRT <213> Enterobacter cloacae <400> 5696 Gln Arg Asn Tyr Gln Val Ile Trp Ser Ser Thr Met Ala Lys Leu His 10 Asp Tyr Tyr Lys Asp Glu Val Val Asn Lys Leu Met Thr Glu Phe Asn 20 25 Tyr Asn Ser Val Met Gln Val Pro Arg Val Glu Lys Ile Thr Leu Asn 40 Met Gly Val Gly Glu Ala Ile Ala Asp Lys Lys Leu Leu Asp Asn Ala 55 Ala Ala Asp Leu Thr Ala Ile Ser Gly Gln Lys Pro Leu Ile Thr Lys 70 75 Ala Arg Lys Ser Val Ala Gly Phe Lys Ile Arg Gln Gly Tyr Pro Ile 90 Gly Cys Lys Val Thr Leu Arg Gly Glu Arg Met Trp Glu Phe Leu Glu 105 Arg Leu Ile Thr Ile Ala Val Pro Arg Ile Arg Asp Phe Arg Gly Leu 120 Ser Ala Lys Ser Phe Asp Gly Arg Gly Asn Tyr Ser Met Gly Val Arg 135 Glu Gln Ile Ile Phe Pro Glu Ile Asp Tyr Asp Lys Val Asp Arg Val 155 150 Arg Gly Leu Asp Ile Thr Ile Thr Thr Gly Lys Ser Asp Glu Lys

170

```
Gly Arg Ala Leu Leu Ala Ala Phe Glu Phe Pro Val Pro Gln Val Lys
            180
                                185
Val Arg Phe Thr Glu Met Ala
                            200
        195
<210> 5697
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 5697
Lys Leu Ser Leu Trp His Gln Lys Tyr Ser Lys Glu Arg Ile Met Ala
                                    10
Ala Lys Ile Arg Arg Asp Asp Glu Val Ile Val Leu Thr Gly Lys Asp
                                25
Lys Gly Lys Arg Gly Lys Val Lys Asn Val Leu Ser Ser Gly Lys Leu
        35
                            40
Val Val Glu Gly Ile Asn Leu Val Lys Lys His Gln Lys Pro Val Pro
                        55
Ala Leu Asn Gln Pro Gly Gly Ile Val Glu Lys Glu Ala Ala Ile Gln
                    70
                                        75
Val Ser Asn Val Ala Ile Phe Asn Ala Ala Thr Gly Lys Ala Asp Arg
                                    90
                85
Val Gly Phe Arg Phe Glu Asp Gly Lys Lys Val Arg Phe Phe Lys Ser
                                105
            100
Asn Ser Glu Thr Ile Lys
        115
<210> 5698
<211> 352
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(278)
<220>
<221>UNSURE
<222>(352)
<400> 5698
Leu Arg Leu Ala Leu Gly Gly Val Thr His Thr Asp Ser Phe Leu His
Leu Lys Ile Lys Gly Asp Met Ile Ala Arg Ile Phe Ser Phe Leu Ser
His Arg Ser Val Arg Val Phe Ala Pro Met Lys Thr Met Lys Ile Ala
Val Ser Arg Glu Leu Val Ser Lys Val Ser Thr His Arg Glu Lys Val
                        55
Met Leu Asp Asn Thr Asp Phe Thr Asp Val Ala Ala Val Val Ile Thr
                    70
                                        75
Val Val Glu Ser Tyr Ser Gly Ile Leu Ala Leu Leu Lys Arg Thr Gly
                85
                                    90
Phe Gln Leu Pro Val Phe Met Phe Ser Thr Glu Pro Gly Glu Val Pro
                                105
                                                     110
            100
Glu Gly Val Thr Ala Ile Ile Ser Gly Lys Ala Gln Glu Leu Leu Glu
                            120
                                                125
Leu Glu Ser Ala Ala Cys Arg Tyr Glu Glu Asn Leu Leu Pro Pro Phe
                        135
                                            140
```

Phe Asp Thr Leu Ser Gln Tyr Val Ala Met Gly Asn Ser Thr Phe Ala

```
2123
                   150
                                       155
Cys Pro Gly His Gln His Gly Ala Phe Phe Lys Lys His Pro Ala Gly
                                    170
               165
Arg Gln Phe Tyr Asp Phe Phe Gly Glu Asn Val Phe Arg Ala Asp Met
           180
                                185
Cys Asn Ala Asp Val Lys Leu Gly Asp Leu Leu Ile His Glu Gly Ser
                           200
Ala Lys His Ala Gln Lys Phe Ala Ala Lys Val Phe Asn Ala Asp Lys
                       215
                                            220
Thr Tyr Phe Val Leu Asn Gly Thr Ser Ala Ala Asn Lys Val Val Thr
                   230
                                        235
Asn Ala Leu Leu Thr Arg Gly Asp Leu Val Leu Phe Asp Arg Asn Asn
                245
                                    250
His Lys Ser Asn His His Gly Ala Leu Ile Gln Ala Gly Ala Thr Pro
                                265
Val Tyr Leu Glu Ala Xaa Arg Asn Pro Phe Gly Phe Ile Gly Gly Ile
                           280
Asp Glu His Cys Phe Asp Glu Ala Trp Leu Arg Glu Leu Ile Arg Asp
                        295
                                            300
Val Ala Pro Gln Lys Ala Ala Glu Ala Arg Pro Phe Pro Ser Gly Asp
                    310
                                        315
His Ser Ala Pro His Leu Pro Met Ala Arg Ile Tyr Asn Ala Arg Ser
                325
                                    330
Gly Glu Ser Thr Asn Ile Arg Ala Pro Leu Arg Leu Thr Ser Leu Xaa
                                345
<210> 5699
<211> 177
<212> PRT
<213> Enterobacter cloacae
<400> 5699
Gln Glu Leu Asn Val Val Ile Gly Pro Phe Ile Asn Ala Gly Ala Val
                                    10
Leu Leu Gly Gly Val Leu Gly Ala Val Leu Ser Gln Arg Leu Pro Glu
                                25
            20
Arg Ile Arg Val Ser Met Pro Ser Ile Phe Gly Leu Ala Ser Leu Gly
Ile Gly Ile Leu Leu Val Val Lys Cys Ala Asn Leu Pro Val Met Val
                        55
Leu Ala Thr Leu Leu Gly Ala Leu Ile Gly Glu Phe Cys Tyr Leu Glu
```

Lys Gly Ile Asn His Ala Val Gly Lys Ala Lys Asn Leu Ile Ala Arg

Pro Gly Lys Ala Lys His Gly Thr His Glu Ser Phe Ile Gln Asn Tyr 105 Val Ala Ile Ile Leu Phe Cys Ala Ser Gly Thr Gly Ile Phe Gly 120

Ser Met Gln Glu Gly Met Thr Gly Asp Pro Ser Ile Leu Ile Ala Lys

Ala Phe Leu Asp Phe Phe Thr Ala Thr Ile Phe Ala Thr Thr Leu Gly

Ile Ala Val Ala Ala Ser Leu His His Gly Pro Glu Gly Pro Arg Met

135

75

155

170

125

140

130 . .

Arg

70

150

<sup>&</sup>lt;210> 5700 <211> 172 <212> PRT <213> Enterobacter cloacae

<400> 5702

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<400> 5700
Ile Ile Thr Ser Met Arg Ser Asn Arg Phe Glu Ala Phe Ala Met Leu
                                    10
Leu Ser Leu Pro Phe Leu Leu Ile Tyr Phe Ala Leu Ser Ala Leu Leu
            20
                                25
Val Arg Thr Asp Ile Arg Thr Gly Leu Leu Pro Asp Lys Phe Leu Cys
                            40
                                                 45
Pro Leu Leu Trp Thr Gly Leu Leu Tyr Gln Leu Cys Leu His Pro Asp
                        55
                                             60
Phe Leu Pro Ser Ala Val Val Gly Ala Met Ala Gly Tyr Ala Gly Phe
                    70
                                        75
Ala Val Ile Tyr Trp Gly Tyr Arg Leu Ile Cys Arg Arg Glu Gly Met
                85
                                    90
Gly Tyr Gly Asp Ile Lys Tyr Leu Ala Ala Leu Gly Ala Trp His Gly
                                105
Trp Cys Val Leu Pro Val Leu Ala Leu Val Ala Ala Leu Met Ala Leu
                            120
Leu Tyr Leu Val Ala Phe Ser Leu Phe Thr Pro Asp Lys Gln Ala Leu
                        135
                                            140
Lys Asn Pro Leu Pro Phe Gly Pro Phe Leu Ala Ala Ala Gly Leu Cys
                    150
                                        155
Val Gly Trp Glu Ser Leu Ile Asn Phe Pro Leu
                165 .
<210> 5701
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 5701
Pro Asp Leu Arg Phe Asn Glu Trp Lys Arg Arg Asp Tyr Ile Met Lys
                                    10
Gly Asp Val Lys Ile Ile Ser Tyr Leu Asn Lys Leu Leu Gly Asn Glu
            20
Leu Val Ala Ile Asn Gln Tyr Phe Leu His Ala Arg Met Phe Lys Asn
Trp Gly Leu Thr Arg Leu Asn Asp Val Glu Tyr His Glu Ser Ile Asp
Glu Met Lys His Ala Asp Lys Tyr Ile Glu Arg Ile Leu Phe Leu Glu
                    70 .
                                        75
Gly Ile Pro Asn Leu Gln Asp Leu Gly Lys Leu Gly Ile Gly Glu Asp
                                    90
Val Glu Glu Met Leu Arg Ser Asp Leu Arg Leu Glu Leu Glu Gly Ala
                                105
Lys Asp Leu Arg Glu Ala Ile Ala Tyr Ala Asp Ser Val His Asp Tyr
                            120
Val Ser Arg Asp Met Met Ile Gln Ile Leu Ala Asp Glu Glu Gly His
                        135
                                             140
Ile Asp Trp Leu Glu Thr Glu Leu Asp Leu Ile Ser Lys Ile Gly Leu
                    150
                                        155
Gln Asn Tyr Leu Gln Ser Gln Ile Lys Val Glu Ser
                165
<210> 5702
<211> 391
<212> PRT
<213> Enterobacter cloacae
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Ser Ala Thr Lys Ser Gly Thr Gly Thr Gly Arg Thr Thr Met Ile Lys

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10
Ser Thr Asp Arg Lys Leu Val Val Gly Leu Glu Ile Gly Thr Ala Lys
                                25
Val Ala Ala Leu Val Gly Glu Val Leu Pro Asp Gly Met Val Asn Ile
                            40
                                                 45
Ile Gly Val Gly Ser Cys Pro Ser Arg Gly Met Asp Lys Gly Gly Val
                        55
                                            60
Asn Asp Leu Glu Ser Val Val Lys Cys Val Gln Arg Ala Ile Asp Gln
                    70
                                        75
Ala Glu Leu Met Ala Asp Cys Gln Ile Ser Ser Val Tyr Leu Ala Leu
                                    90
                85
Ser Gly Lys His Ile Ser Cys Gln Asn Glu Ile Gly Met Val Pro Ile
                                105
Ser Glu Glu Glu Val Thr Gln Glu Asp Val Glu Asn Val Val His Thr
                            120
                                                 125
Ala Lys Ser Val Arg Val Arg Asp Glu His Arg Val Leu His Val Ile
                        135
                                            140
Pro Gln Glu Tyr Ala Ile Asp Tyr Gln Glu Gly Ile Lys Asn Pro Val
                . 150
                                        155
Gly Leu Ser Gly Val Arg Met Gln Ala Lys Val His Leu Ile Thr Cys
                                    170
                165
His Asn Asp Met Ala Lys Asn Ile Val Lys Ala Val Glu Arg Cys Gly
            180
                                185
                                                     190
Leu Lys Val Asp Gln Leu Ile Phe Ala Gly Leu Ala Ala Ser Tyr Ser
                            200
        195
                                                 205
Val Leu Thr Glu Asp Glu Arg Glu Leu Gly Val Cys Val Val Asp Ile
                        215
                                            220
Gly Gly Gly Thr Met Asp Met Ala Val Tyr Thr Gly Gly Ala Leu Arg
                    230
                                         235
His Thr Lys Val Ile Pro Tyr Ala Gly Asn Val Val Thr Ser Asp Ile
                245
                                    250
Ala Tyr Ala Phe Gly Thr Pro Pro Ser Asp Ala Glu Ala Ile Lys Val
                                265
Arg His Gly Cys Ala Leu Gly Ser Ile Val Gly Lys Asp Glu Ser Val
        275
                            280
                                                 285
Glu Val Pro Ser Val Gly Gly Arg Pro Pro Arg Ser Leu Gln Arg Gln
                        295
                                            300
Thr Leu Ala Glu Val Ile Glu Pro Arg Tyr Thr Glu Leu Leu Asn Leu
                    310
                                         315
Val Asn Glu Glu Ile Leu Gln Leu Gln Glu Gln Leu Arg Gln Gln Gly
                                    330
Val Lys His His Leu Ala Ala Gly Ile Val Leu Thr Gly Gly Ala Ala
                                345
Gln Ile Glu Gly Leu Ala Ala Cys Ala Gln Arg Val Phe His Thr Gln
                            360
Val Arg Ile Gly Ala Pro Leu Asn Ile Thr Gly Leu Thr Asp Phe Leu
                        375
Thr Arg Gly Gly Val Lys Arg
<210> 5703
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 5703
Ala Arq Arq Ser Trp Gln Leu Thr Leu Thr Asn Gly Ile Lys Leu Asn
Leu Gly Arg Gly Asp Thr Met Lys Arg Leu Ala Arg Phe Val Glu Leu
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Tyr Pro Val Leu Gln Gln Gln Ala Gln Thr Asp Gly Lys Arg Ile Ser

```
40
Tyr Val Asp Leu Arg Tyr Asp Ser Gly Ala Ala Val Gly Trp Glu Pro
                        55
                                            60
Ala Pro Val Glu Glu Pro Asn Gln Gln Gln Asn Gln Ala Gln Val Gln
Ala Glu Gln Gln
<210> 5704
<211> 219
<212> PRT
<213> Enterobacter cloacae
<400> 5704
Ile Tyr Leu Glu Val Phe Met Ala Val Ala Ala Asn Lys Arg Ser Val
Met Thr Leu Phe Ser Gly Pro Thr Asp Ile Tyr Ser His Gln Val Arg
                                25
Ile Val Leu Ala Glu Lys Gly Val Ser Phe Glu Ile Glu His Val Glu
Lys Asp Asn Pro Pro Gln Asp Leu Ile Asp Leu Asn Pro Ser Gln Ser
                        55
Val Pro Thr Leu Val Asp Arg Glu Leu Thr Leu Trp Glu Ser Arg Ile
                    70
Ile Met Glu Tyr Leu Asp Glu Arg Phe Pro His Pro Pro Leu Met Pro
                                    90
Val Tyr Pro Val Ala Arg Gly Glu Ser Arg Leu Tyr Met Gln Arg Ile
                                105
Glu Lys Asp Trp Tyr Ser Leu Met Asn Val Ile Val Asn Gly Ser Ser
                            120
Ser Glu Ala Asp Ala Ala Arg Lys Gln Leu Arg Glu Glu Leu Leu Ala
                        135
Ile Ala Pro Val Phe Gly Gln Lys Pro Phe Phe Leu Ser Asp Glu Phe
                    150
Ser Leu Val Asp Cys Tyr Leu Ala Pro Leu Leu Trp Arg Leu Pro Thr
                                    170
Leu Gly Val Glu Phe Ser Gly Pro Gly Ala Lys Glu Leu Lys Gly Tyr
                                185
Met Thr Arg Val Phe Glu Arg Asp Ser Phe Leu Ala Ser Leu Thr Glu
                            200
Pro Glu Arg Glu Met Arg Leu Gly Arg Gly
                        215
<210> 5705
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 5705
Asn Ala Ser Arg Pro Arg Leu Met Thr Val Glu Met Ser Gln Leu Ser
                                    10
Pro Arg Arg Pro Tyr Met Leu Arg Ala Phe Tyr Glu Trp Leu Leu Asp
                                25
Asn Gln Leu Thr Pro His Leu Val Val Asp Val Thr Leu Pro Gly Val
                            40
Leu Val Pro Met Glu Tyr Ala Arg Asp Gly Gln Ser Ser Pro Arg Arg
Trp Gln Asp Pro Arg Leu Ala Leu
<210> 5706
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<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 5706
Tyr Thr Glu Ile Ala Phe Arg Lys Thr Cys Ile Glu Pro Gln Ser Arg
Cys Leu Leu Thr Arg Ile Lys Gly Val Ile Met Glu Lys Asn Ser Glu
                                25
            20
Val Ile Gln Thr His Pro Leu Val Gly Trp Asp Ile Ser Thr Val Asp
Ser Tyr Asp Ala Leu Met Leu Arg Leu His Tyr Gln Thr Pro Asn Gln
                        55
Leu Asn Arg Asp Glu Ala Glu Val Gly Gln Thr Leu Trp Leu Thr Thr
                    70
Asp Val Ala Arg Gln Phe Ile Ser Ile Leu Glu Ala Gly Ile Ala Lys
                                    90
Ile Glu Ser Gly Asp Tyr Gln Glu Asn Glu Tyr Lys Arg His
            100
                                105
<210> 5707
<211> 233
<212> PRT
<213> Enterobacter cloacae
<400> 5707
Gln Ser Val Ser Lys Glu Lys Pro Met Lys Tyr Asp Leu Ile Ile Ile
Gly Ser Gly Ser Val Gly Ser Ala Ala Gly Tyr Tyr Ala Thr Gln Ala
            20
Gly Leu Asn Val Leu Met Ile Asp Ala His Arg Pro Pro His Ser Glu
                            40
Gly Ser His His Gly Asp Thr Arg Leu Ile Arg His Ala Tyr Gly Glu
Gly Glu Arg Tyr Val Pro Leu Val Leu Arg Ala Gln Thr Leu Trp Asp
                    70
                                        75
Glu Leu Ala Ala Leu Thr Glu Glu Arg Ile Phe Glu Arg Thr Gly Val
                                    90
Val Asn Leu Gly Pro Ala Ser Ser Thr Phe Leu Ala Thr Val Glu Glu
            100
                                105
Ser Ala Lys Ala Tyr Arg Leu Asp Val Glu Arg Leu Asp Ala Asn Gly
        115
                            120
                                                125
Ile Met Ala Arg Trp Pro Glu Ile Ser Val Pro Glu Asp Tyr Ile Gly
                        135
                                            140
Leu Phe Glu Ala Asn Ser Gly Val Leu His Ser Glu Thr Ala Ile Asn
                    150
                                        155
Thr Trp Ile Asp Leu Ala Ala Lys Ala Gly Cys Ala Gln Leu Phe Asn
                                    170
                165
                                                        175
Cys Pro Val Thr Gly Ile Thr His His Ala Glu Gly Ser Thr Val Thr .
                                185
                                                     190
Thr Ser Glu Gly Glu Tyr Thr Ala Thr Arg Leu Leu Val Ser Ala Gly
                            200
                                                205
Thr Trp Val Thr Lys Leu Leu Pro Asp Leu Pro Ile His Pro Val Arg
                       215
                                            220
Lys Val Phe Ser Trp Val Pro Val
                    230
<210> 5708
<211> 158
<212> PRT
<213> Enterobacter cloacae
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<400> 5708
His Leu Phe Asp Val Ala Leu Lys Phe Arg Val Leu Ile Leu Tyr Glu
                                    10
Val Val Leu Leu Arg Val Tyr Glu Ala Lys Ala Lys Thr Arg Ser Tyr
                                25
Leu Met Ala Thr Val Asn Gln Leu Val Arg Lys Pro Arg Ala Arg Lys
                            40
Val Ala Lys Ser Asn Val Pro Ala Leu Glu Ala Cys Pro Gln Lys Arg
                        55
Gly Val Cys Thr Arg Val Tyr Thr Thr Thr Pro Lys Lys Pro Asn Ser
                                        75
Ala Leu Arg Lys Val Cys Arg Val Arg Leu Thr Asn Gly Phe Glu Val
                85
                                    90
Thr Ser Tyr Ile Gly Gly Glu Gly His Asn Leu Gln Glu His Ser Val
                                105
Ile Leu Ile Arg Gly Gly Arg Val Lys Asp Leu Pro Gly Val Arg Tyr
                            120
                                                 125
His Thr Val Arg Gly Ala Leu Asp Cys Ser Gly Val Lys Asp Arg Lys
                                             140
                        135
Gln Ala Arg Ser Lys Tyr Gly Val Lys Arg Pro Lys Ala
                    150
<210> 5709
<211> 137
<212> PRT
<213> Enterobacter cloacae
<400> 5709
Gln Arg Ser Asn Pro Met Pro Arg Arg Val Ile Gly Gln Arg Lys
                                    10
Ile Leu Pro Asp Pro Lys Phe Gly Ser Glu Leu Leu Ala Lys Phe Val
            20
Asn Ile Leu Met Val Asp Gly Lys Lys Ser Thr Ala Glu Ala Ile Val
                            40
Tyr Ser Ala Leu Glu Thr Leu Ala Gln Arg Ser Gly Lys Asn Glu Leu
Glu Ala Phe Glu Val Ala Leu Asp Asn Val Arg Pro Thr Val Glu Ile
                    70
                                        75
Lys Ser Arg Arg Val Gly Gly Ser Thr Tyr Gln Val Pro Val Glu Val
                                    90 ~
Arg Pro Val Arg Arg Asn Ala Leu Ala Met Arg Trp Ile Val Glu Ala
                                105
                                                     110
Ala Arg Lys Arg Gly Asp Lys Ser Met Ala Leu Arg Leu Ala Asn Glu
                            120
Leu Ser Asp Ala Ala Glu Asn Lys Gly
<210> 5710
<211> 113
<212> PRT
<213> Enterobacter cloacae
<400> 5710
Thr Phe Val Phe Arg Ser Ile Arg Lys Phe Val Arg Gln Thr Gln Ser
                                    10
His Gly Phe Ile Thr Ala Phe Thr Ser Ser Phe Asn Asp Pro Thr His
                                25
Cys Gln Ser Ile Thr Thr Asn Arg Thr Asn Phe Asn Trp Asn Leu Ile
                            40
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Ser Arg Thr Thr Asn Ala Ala Arg Leu Asn Phe Tyr Ser Arg Ala His

60 55 Val Val Glu Ser Asp Phe Glu Gly Phe Gln Phe Ile Phe Thr Arg Thr 75 70 Leu Ser Gln Gly Leu Gln Arg Ala Val Tyr Asp Cys Phe Cys Gly Arg 90 85 Phe Phe Thr Ile Tyr His Gln Asp Ile Tyr Lys Phe Cys Gln Gln Phe 105 <210> 5711 <211> 185 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(165) <400> 5711 Lys Leu Tyr Ala Arg Glu Ala Phe Met Pro Arg Arg Gln Ile Leu Ser 10 Ser Glu Glu Glu Arg Leu Leu Val Ile Pro Asp Asp Glu Ile Ile 25 20 Leu Thr Arg Met Cys Phe Leu Asn Glu Pro Asp Ile Ala Leu Ile Asn 40 Lys His Arg Arg Pro Ala Asn Arg Leu Gly Phe Ala Val Leu Leu Cys 55 60 Tyr Leu Arg Gly Pro Gly Phe Ile Pro Asp Lys Ser Ser Ala Pro His 70 75 Asn Gly Val Val Ser Arg Val Ala Ser Arg Leu Lys Leu Gln Pro Asp 85 90 Leu Trp Pro Glu Tyr Ala Ser Arg Glu Gln Thr Arg Trp Glu His Leu 100 105 110 Thr Glu Leu Tyr Arg Tyr Leu Glu Leu Ser Pro Phe Ser Arg Ser Met 120 125 Gln Lys Glu Cys Ile Arg His Leu Gln Pro Tyr Ala Met Arg Thr Asp 140 135 Lys Arg Phe Met Leu Ala Gly Arg Asn Ala His Leu Gly Tyr Ile Asn 150 155 Asn Asn Val Tyr Xaa Pro Leu Leu Leu Lys Val Ile Gln Thr Asp Ala 170 165 Leu Pro Lys Ser Phe Thr Leu Arg 180 185 <210> 5712 <211> 212 <212> PRT <213> Enterobacter cloacae <400> 5712 Phe Arg Thr His Val Ile Ile Arg Thr Ser Ile Ser Tyr Gly Lys Phe 10 Pro Met Ser Arg Val Phe Ala Tyr Cys Arg Val Ser Thr Leu Glu Gln 25 20 Thr Thr Glu Asn Gln Arg Arg Glu Ile Glu Ala Ala Gly Phe Ala Ile 45 40 Arg Ser Gln Arg Leu Ile Glu Glu His Ile Ser Gly Ser Val Ala Ala 55 60 Ser Glu Arg Pro Gly Phe Ile Arg Leu Leu Asp Arg Met Glu Asn Gly

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Asp Val Leu Ile Val Thr Lys Leu Asp Arg Leu Gly Arg Asn Ala Met
                8.5
                                    90
Asp Ile Arg Lys Thr Val Glu Gln Leu Ala Ala Leu Asp Ile Arg Val
            100
                                105
His Cys Leu Ala Leu Gly Gly Val Asp Leu Thr Ser Pro Ala Gly Lys
                            120
Met Thr Met Gln Val Ile Ser Ala Val Ala Glu Phe Glu Arg Asp Leu
                        135
Leu Leu Glu Arg Thr Tyr Ser Gly Ile Ala Arg Ala Lys Ala Ala Gly
                    150
                                        155
Lys Arg Phe Gly Arg Pro Pro Ile Leu Ser Glu Glu Gln Lys Gln Thr
                165
                                    170
Val Thr Glu Arg Leu Asn Ala Gly Ile Ser Ile Ser Ala Ile Ala Arg
            180
                                185
Glu Phe Asn Thr Thr Arg Gln Ile Ile Leu Arg Val Lys Ala Gly Leu
                            200
                                                 205
Leu Gln Glu
    210
<210> 5713
<211> 134
<212> PRT
<213> Enterobacter cloacae
<400> 5713
Ser Pro Phe Ala Gly Leu Arg Leu Phe Gly Glu Lys Ser Asp Ser Val
                                    10
Ile Cys Gly His Ser Asn Cys Gly Ala Met Lys Ala Ile Ala Asp Asn
            20
                                25
Ala Asp Leu Glu Pro Met Pro Ala Val Ser His Trp Leu Arg Tyr Ser
Asp Ala Ala Lys Ala Val Val Glu Lys Lys Thr Trp Asp Lys Pro Ile
Asp Lys Val Asn Ala Met Val Gln Glu Asn Val Phe Ala Gln Leu Ser
                    70
                                        75
Asn Ile Lys Thr His Pro Ser Val Ala Val Gly Leu Arg Asn Asn Ala
                                    90
Ile Arg Leu His Gly Trp Val Tyr Asp Ile Glu Ser Gly Lys Ile Leu
                                105
Ala Leu Asp Lys Asn Thr Lys Ser Phe Val Ser Leu Ser Glu Asn Pro
                            120
Glu Val Phe Phe Glu
    130
<210> 5714
<211> 303
<212> PRT
<213> Enterobacter cloacae
<400> 5714
Gly Val Glu Leu Phe Gly Ser Ala Ala Pro Leu Val Lys Thr Glu Ala
                                    10
Asp Phe Tyr Cys Pro Ile Pro Tyr Glu Pro Leu Ser Val Leu Thr Asp
            20
                                25
Cys Val Val Ala Ser Glu Ile Asp Lys Gly Pro Asp Gly Leu Leu Asp
                            40
Arg Ile Phe Ala Leu Met Val Lys Glu Leu Glu Leu Ala Asp Pro Arg
                        55
Trp Cys Gln Ala Ile Ala Leu Gly Thr Leu Asn Ala Asp Thr Leu Arg
```

Asp Ala Trp Phe Glu Asp Arg Lys Lys His Gly Pro Phe Thr Trp Ala

```
85
                                    90
Glu Ala Asn Leu Lys Glu Val Glu Arg Asn Lys Arg Glu Lys Arg Thr
           100
                               105
Val Ala Trp Arg Tyr Thr Val Leu Arg Leu His Glu Val Val Gln Ala
                            120
                                                125
Ile Val Pro Ser Leu Asn Glu His Asp Arg Glu Arg Phe Lys Ser Gly
                        135
Leu Glu Arg Val Phe Ile Asp Asn Tyr Ala Ala Ile Pro Pro Gln Ser
                   150
                                        155
Ile Arg Arg Leu Leu Ala Leu Arg Glu Ala Gly Ile Ile Ser Val Val
                                    170
Ala Leu Gly Asp Asp Tyr Asp Leu Asp Ile Gly Ser Asp Gln Thr Val
                                185
Ile Thr Thr Ala Lys Lys Ser Tyr Arg Phe Asp Val Phe Ile Asp Ala
                            200
Arg Gly Gln Lys Pro Leu Arg Asn Lys Asp Ile Pro Phe Pro Thr Leu
                        215
                                            220
Arg Lys Gln Leu Ala Gly Thr Gly Asp Asp Val Pro Asp Val Gly Glu
                    230
                                        235
Asp Tyr Thr Leu Leu Ala Pro Ala Ser Leu Arg Gly Arg Ile Ala Phe
                                    250
                245
Gly Ala Ile Pro Trp Leu Met His Asp His Pro Phe Val Gln Gly Leu
                                265
Ser Glu Cys Ala Glu Ile Gly Lys Ala Met Ala Lys Ala Ala Gly Lys
        275
                            280
Pro Ala Ser Gly Val Arq Arq Lys Leu Pro Tyr Met Glu Phe
                        295
<210> 5715
<211> 127
<212> PRT
<213> Enterobacter cloacae
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<400> 5715

Asn Cys Phe Leu Ile Pro Leu Ile Gln Glu Asn Asp Thr Met Leu Asp Trp Asn Asn Tyr Arg Ser Glu Leu Met Gln Arg Leu Gly Glu Leu Gly 25 Lys Leu Thr Pro Glu Thr Met Lys Gly Val Val Ala Leu Gly Asn Ala 40 Gly Asn Lys Thr Asp Leu Leu Gly Ala Lys Val Arg Glu Leu Ile Ala 55 Leu Ala Cys Ala Val Thr Thr Arg Cys Asp Gly Cys Ile Ala Phe His 70 75 Ala Asp Ala Ala Val Lys Ala Gly Ala Thr Asp Ala Glu Ile Ala Glu 85 90 Ala Leu Gly Val Ala Ile Asn Leu Asn Ala Gly Ala Ala Val Ile Ser 100 105 Phe Ser Pro His Leu Ser Thr Ala Arg Asp Glu Val Ala Ala Pro

120

<210> 5716

<211> 119

<212> PRT

115

<213> Enterobacter cloacae

<400> 5716

Leu Met Arg Gly Pro Ala Ala Pro Leu Val Lys Thr Thr Gly Met Ser 10 Pro Thr Glu Tyr Ile Met Gln Ala Leu Ala Gly Cys Tyr Thr Ala Thr 20 25

Leu Thr Met Met Ala Ala Glu Lys Gly Ile Asp Leu Asp Gly Ile Glu 40 Leu Asp Leu Asn Phe Asp Ile Asn Leu Asn Gly Phe Leu Gly Leu Asp 55 Ser Asn Val Arg Lys Gly Ala Lys Ser Ile Arg Val Asp Val His Leu 70 75 Thr Ser Asn Thr Ala Ser Arg Glu Glu Leu Glu Ala Leu Val Ser Glu 85 90 Met Gln Lys Asn Ser Pro Ile His Asp Thr Leu Ala Asn Pro Val Glu 100 105 Met Ile Thr Arg Leu Ala 115 <210> 5717 <211> 208 <212> PRT <213> Enterobacter cloacae <400> 5717 Gln Gln Tyr Asn Leu Ser Thr Ser Arg Leu Tyr Gly Val Ile Met Thr 10 Thr Met Thr Arg Glu Arg Leu Leu Ser Glu Ala Glu His Leu Met Arg 25 20 Glu Lys Gly Tyr Ser Ala Phe Ser Tyr Ala Asp Leu Ser Lys Ile Val 35 40 Gly Ile Thr Lys Ala Ser Ile His His His Phe Pro Thr Lys Asp Ile 55 Leu Gly Glu Gln Val Val Ile Gln Ala Phe Ser Asp Thr Gln Arg Val 70 7.5 Phe Glu Gln Ile Glu Ala Thr Glu Lys Ser Ala Glu Arg Arg Ile Ala 90 8.5 Ala Tyr Ile Asp Ile Phe Ala Gln Ser His Lys Ala Ser Leu Leu Pro 100 105 Leu Cys Cys Ala Leu Ser Ala Glu Thr Ala Asn Leu Pro Gln Ala Ile 115 120 Thr Val Gln Thr Ser Leu Tyr Phe Asp Met Gln Ile Glu Trp Leu Thr 135 140 Lys Val Val Arg Ala Gly Met Glu Ser Gly Glu Phe Ser Ser His Ala 150 155 Glu Pro Ser Asp Ile Ala Leu Met Ile Ile Asn Val Cys Glu Gly Ser 170 Ser Val Val Ala His Ala Thr Ala Arg Pro Glu Val Phe Ala Asn Ser 185 Leu Lys Tyr Ile Lys Leu Leu Asn Thr Pro His Ser Gly Glu 200 <210> 5718 <211> 262 <212> PRT <213> Enterobacter cloacae <400> 5718 Ser Arg Leu His Arg Arg Ile Ala Pro Phe Glu Asp His Ala Ile Ser 10 Ala Thr Leu Lys Glu Ser Leu Thr Lys Gln Gly Val Glu Phe Leu Thr 25 Gly Ala Asp Leu Lys Gln Val Lys Val Gly Gly Asp Leu Val Ile Cys 40 45 Thr Val Ile Val Gly Glu Asp Thr His Val Ile Thr Ala Glu Lys Ile 55

Leu Ile Ala Thr Gly Arg Arg Pro Val Thr Glu Lys Leu Asn Leu Asp

```
70
                                        75
Ala Val Asn Val Ser Val Gly Ala Arg Gly Gln Val Ile Val Asp Lys
                                    90
                85
His Leu Met Thr Ser Asn Pro Arg Ile Trp Ala Ala Gly Asp Val Thr
            100
                                105
Gly Glu Ala Gln Phe Val Tyr Val Ala Val Glu Gln Gly Arg Leu Ala
                            120
                                                125
Ala Ser Asn Ala Leu Gly Gly Glu Leu Ser Ser Leu Asp Tyr Asn Ala
                        135
                                           140
Leu Pro Arg Val Thr Phe Thr Ser Pro Glu Leu Ala Ser Val Gly Leu
                    150
                                        155
Thr Pro Leu Gln Ala Glu Glu Arg Gly Ile Pro Tyr Glu Ile Arg Glu
                165
                                    170
Leu Pro Val Ala Phe Val Leu Arg Ala Ile Val Ser Arg His Ser Asp
                                185
Gly Leu Ile Arg Leu Val Ser Asp Ser Gln Thr Gly Thr Ile Leu Gly
                            200
                                                 205
Val His Met Val Ser Glu Ser Ala Gly Asp Val Ile Ala Ala Ala Thr
                        215
                                            220
Tyr Ile Ile Ser Ala Asn Met Thr Val His Gln Leu Ala Asn Ile Trp
                    230
                                        235
Ser Pro Glu Phe Thr Met Thr Glu Ser Leu Lys Asn Val Ala Lys Thr
                245
                                    250
Ser Pro Ile Thr Asn
            260
<210> 5719
<211> 83
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(25)
<400> 5719
Gly His Met Ser Gln Gln Leu Thr Phe Ala Asp Ser Glu Phe Ser Ser
                                    10
Lys Arg Arg Leu Thr Arg Lys Glu Xaa Phe Leu Ser Arg Met Asp Thr
Leu Leu Pro Trp Pro Gln Leu Leu Gly Asn Ile Glu Pro Val Tyr Pro
Lys Thr Gly Asn Gly Arg Arg Pro Tyr Ser Leu Glu Thr Met Ser Arg
                        55
Asn Pro Cys Leu Gln Leu Trp Tyr Asn Leu Gly Asp Glu Thr Met Glu
                    70
Asp Ala Leu
<210> 5720
<211> 166
<212> PRT
<213> Enterobacter cloacae
<400> 5720
Arg Glu Pro Ser Met Asn Ser Leu Leu Thr Leu Ala Lys Asp Leu Glu
                                    10
Gln Lys Ser Lys Ala Gln Gln Gln Thr Thr Gly Glu Met Leu Lys Ala
                                25
```

Ala Phe Ser Glu His Glu Lys Ser Val Arg Ala Glu Leu Ser Glu Ser

```
Glu Lys Arg Ile Ser Ala Ala Ile Leu Asp His Asp Arg Lys Leu Ser.
Ser Ala Met Ser Gln Arg Thr Lys Gly Met Leu Arg Met Val Ser Gln
                                        75
Thr Trp Leu Thr Ile Val Leu Val Ser Ala Leu Leu Ile Ala Ser Ser
                8.5
                                    90
Ala Gly Ile Leu Trp Trp Gln Gly Gln Gln Ile Leu Glu Asn Tyr Thr
                                105
Thr Ile Arg Glu Gln Lys Ser Thr Gln Ala Met Leu Ser Glu Arg Asn
                            120
       115
Ser Gly Val Gln Leu Ser Thr Cys Gly Glu Gln Arg Arg Arg Cys Val
                       135
                                            140
Arg Val Asn Pro Glu Ala Gly Gln Phe Gly Glu Asp Ser Ser Trp Met
                    150
                                        155
Ile Leu Ala Gly Lys
<210> 5721
<211> 73
<212> PRT
<213> Enterobacter cloacae
<400> 5721
His Met Thr Glu Leu Glu Lys Gln Leu Leu Ser Ala Leu Glu Gln Leu
                                    10
Gln Gln Asp Tyr Ser Lys Arg Leu Asp Glu Trp Glu Asn Ala Phe Ala
                                25
Glu Trp Arg Thr Met Ser Gly Leu Ile Gln Arg Glu Asn Ala Ala Leu
                            40
Asn Glu Arg Val Thr Val Leu Ser Arg Gln Val Gln Ser Leu Ser Glu
Gln Leu Arg Arg Leu Ser Lys Gly
<210> 5722
<211> 287
<212> PRT
<213> Enterobacter cloacae
<400> 5722
Pro Thr Leu Pro Ser Thr Asp Gly Gly Arg Asn Ile Arg Leu Lys Gly
                                    10
Ala Ile Tyr Glu Gln Ser Phe Asn Ala Gly Glu Gly Leu Arg Ala Glu
Ile Glu Ser Ala Ala Ala Asp Tyr Arg Asp Ala Glu Ser Arg Ile
                            40
Gln Arg Ala Arg Glu Val Cys Gln Ser Gly Thr Glu Arg Lys Arg Glu
                        55
Glu Asn Gln Arg Arg His Pro Arg Pro Arg Pro Glu Ala Val Leu Ser
                                        75
His Glu Pro Ala His Glu Arg Asp Ala Ala His Gly Gln Pro Asp Val
```

85 90 95

Ala Asp His Arg Ser Gly Leu Arg Ala Ala Asp Ser Val Glu Arg Gly 100 105 110

His Ser Val Val Ala Gly Ala Ala Asp Thr Arg Glu Leu Tyr Asp His 115 120 125

Pro Gly Ala Glu Glu His Ala Gly His Ala Val Arg Glu Glu Gln Arg 130 135 140

Arg Thr Ala Leu Asp Leu Arg Arg Ala Glu Thr Pro Leu Arg Glu Gly 145 150 155 160

Glu Pro Gly Ser Gly Thr Val Arg Arg Gly Leu Glu Leu Asp Asp Thr

165 170 Gly Glu Ile Ala His Asp Gly Ala Gly Lys Thr Val Ala Glu Arg 185 180 Ile Arg Ala Ala Thr Ala Gly Leu Leu Glu Lys Ala Gly Arg Val Gly 200 205 Glu Arg Leu Arg Gly Met Ala Asp Asp Val Trp Ser Tyr Ser Thr Gly 215 220 Glu Arg Gly Ala Glu Arg Ala Arg His Gly Leu Glu Gln Ala Gly Ala 230 235 Glu Phe Glu Arg Ala Ala Pro Val Val Glu Arg Leu Asn Ala Ile 245 250 Glu Thr His Arg Gln Gln Glu Arg Ala Val Gln His Gln Lys Ala Leu 265 Glu Leu Glu Arg Ser Gln Trp Gln His His Gly Pro Ser Leu

<210> 5723

<211> 209

<212> PRT

<213> Enterobacter cloacae

<400> 5723

Trp Arg Gln Phe Phe Ser Phe Cys Leu Arg Phe Val Glu Asn Pro Lys 10 Met Leu Lys Lys Leu Phe Phe Pro Leu Val Ala Leu Phe Met Leu Ala 20 25 Gly Cys Ala Thr Pro Pro Thr Thr Ile Asp Val Ser Pro Lys Ile Thr 40 Leu Pro Gln Gln Asp Pro Ser Leu Met Gly Val Thr Val Ser Ile Asn 55 Gly Ala Asp Gln Arg Gln Asp Gln Ala Leu Ala Lys Val Thr Arg Asp 70 Asn Gln Gln Val Thr Leu Thr Ala Ser Arg Asp Leu Arg Phe Leu Leu 8.5 90 Gln Glu Val Leu Glu Lys Gln Met Thr Ser Arg Gly Tyr Met Ile Gly 105 100 Pro Ser Gly Ala Val Asp Leu Gln Ile Ile Val Asn Asn Leu Tyr Ala 115 120 Asp Val Ser Gln Gly Asn Val Arg Tyr Asn Ile Ala Thr Lys Ala Asp 135 140 Ile Ala Ile Ile Ala Thr Ala Lys Asn Gly Asn Lys Met Asn Lys Asn 150 155 Tyr Arg Ala Ser Tyr Ser Val Glu Gly Ala Phe Gln Ala Ser Asn Lys 170 Asn Ile Ala Asp Ala Val Asn Ser Val Leu Thr Asp Thr Ile Ala Asp 185 Met Ala Gln Asp Thr Ser Ile His Asp Phe Ile Lys Gln Asn Ala Arg

<210> 5724

<211> 124

<212> PRT

<213> Enterobacter cloacae

<400> 5724

Leu Thr Arg Cys Phe Thr Gly Ser Val His Lys Asn Met Ser Ser His 10 Tyr Leu Arg Ile Phe Gln Gln Pro Lys Ser Ala Ile Leu Leu Ile Leu 20 25

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Gly Phe Ala Ser Gly Leu Pro Leu Ala Leu Thr Ser Gly Thr Leu Gln
                            40
Ala Trp Met Thr Val Glu Asn Ile Asp Leu Lys Thr Ile Gly Phe Phe
                        55
Ser Leu Val Gly Gln Ala Tyr Val Phe Lys Phe Leu Trp Ser Pro Val
                    70
                                        75
Met Asp Arg Tyr Thr Pro Pro Phe Leu Gly Arg Arg Gly Trp Leu
                                    90
Ala Met Thr Gln Ala Leu Leu Leu Leu Ala Ile Ala Ala Pro Val Ser
                                105
Leu Ser Cys Glu Gln Ser Gly Ser Pro Lys Gly
        115
                            120
<210> 5725
<211> 79
<212> PRT
<213> Enterobacter cloacae
<400> 5725
Arg Cys Arg Arg Ser Asp Phe Met Met Ile Arg Glu Gln Ile Glu Glu
                                    10
Lys Leu Arg Ala Ala Phe Asn Pro Val Phe Leu Glu Val Val Asp Glu
            20
Ser Tyr Arg His Asn Val Pro Ala Gly Ser Glu Ser His Phe Lys Val
        35
Val Leu Val Ser Asp Arg Phe Thr Gly Glu Arg Phe Leu Asn Arg His
Arg Ser Ile Cys Leu His Cys Arg Val Pro Val Arg Ala Met Leu
<210> 5726
<211> 255
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(253)
<400> 5726
Thr Ala Pro Val His Ser Gly Ala Val Leu Thr Phe Leu Lys Thr Leu
Arg Lys Arg Arg Tyr Phe Glu Phe Tyr Glu Ala Ser Asn Met Val Pro
                                25
Val Val Ala Leu Val Gly Arg Pro Asn Val Gly Lys Ser Thr Leu Phe
                            40
Asn Arg Leu Thr Arg Thr Arg Asp Ala Leu Val Ala Asp Phe Pro Gly
                        55
Leu Thr Arg Asp Arg Lys Tyr Gly Arg Ala Glu Val Glu Gly Arg Glu
                    70
                                        75
Phe Ile Cys Ile Asp Thr Gly Gly Ile Asp Gly Thr Glu Asp Gly Val
                85
                                    90
Glu Thr Arg Met Ala Glu Gln Ser Leu Leu Ala Ile Glu Glu Ala Asp
                                105
Val Val Leu Phe Met Val Asp Ala Arg Ala Gly Leu Met Pro Ala Asp
                            120
Ser Ala Ile Ala Lys His Leu Arg Ser Arg Glu Lys Pro Thr Phe Leu
                        135
Val Ala Asn Lys Thr Asp Gly Ile Asp Ala Asp Gln Ala Ile Ala Asp
```

150 ·

Phe Trp Ser Leu Gly Leu Gly Asp Ile Tyr Pro Ile Ala Ala Ser His

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165
                                    170
                                                         175
Gly Arg Gly Val Thr Ser Leu Leu Glu Thr Val Leu Leu Pro Trp Val
            180
                             185
Asp Glu Val Asn Pro Pro Glu Glu Val Asp Glu Asp Ala Glu Tyr Trp
                            200
Ala Gln Phe Glu Ala Gly Glu Glu Glu Glu Glu Pro Glu Asp Asp
                        215
                                            220
Phe Asn Pro Gln Asp Leu Pro Ile Lys Leu Ala Ile Val Gly Arg Pro
                    230
                                        235
Asn Val Gly Lys Ser Thr Leu Thr Asn Arg Ile Phe Xaa Arg
                                    250
<210> 5727
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 5727
Leu Phe Ser Arg Gly Cys Ser Tyr Val Val Lys Thr Phe Gly Ala Ala
                                    10
Ile Val Gly Gly Asp Asn Gly Arg Val Ser Ala Val Leu Met Gln Gln
                                25
Gly Gln Met Ile Trp Gln Gln Arg Ile Ser Gln Ala Thr Gly Ser Thr
Glu Ile Asp Arg Leu Ser Asp Val Asp Thr Thr Pro Val Ile Val Asp
                        55
Gly Val Val Tyr Ala Leu Ala Tyr Asn Gly Asn Leu Thr Ala Leu Asp
                    70
                                        75
Leu Arg Ser Gly Gln Ile Met Trp Lys Arg Glu Leu Gly Ser Val Asn
                85
                                    90
Asp Phe Ile Val Asp Gly Asn Arg Ile Tyr Met Val Asp Gln Asn Asp
            100
                                105
Arg Leu Leu Ala Leu Ser Thr Glu Gly Gly Val Thr Leu Trp Thr Gln
                            120
Ser Asp Leu Leu His Arg Leu Leu Thr Ala Pro Ala Leu Tyr Asn Gly
                        135
Ser Leu Val Val Gly Asp Ser Glu Gly Tyr Met His Trp Ile Asp Pro
                    150
                                        155
Glu Asn Gly Arg Phe Val Ala Gln Gln Lys Val Asp Ser Ser Gly Phe
                                    170
Leu Thr Glu Pro Val Val Ala Asp Gly Lys Leu Leu Ile Gln Ala Lys
                                185
Asp Gly Thr Leu Tyr Ala Ile Thr Arg
<210> 5728
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 5728
Val Ile Val Thr His His Pro Ser Leu Leu Cys Leu Lys Asn Ser Arg
                                    10
Val Gln Pro Pro Lys Ser Thr Ala Lys Thr Tyr Asn His Thr Ile Lys
                                25
Pro Ser Asp Phe Gln Met Cys Arg Thr Asp Lys Phe Gln Leu Ser Val
                            40
Leu Asn Thr Ile Ile Phe Thr Ile Asp Ala Pro Ile Lys Thr Gly Leu
Ser Ile Asn His Leu Ser Ile Ile Ser Gly Tyr Ser Lys Trp His Leu
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Gln Lys Ile Phe Lys His His Phe Gly Met Ser Leu Gly Thr Tyr Ile
                85
                                    90
Arg Arg Lys Arg Ile Glu Tyr Ala Ala His Glu Ile Ile Asn Lys Lys
            100
                               105
Cys Lys Ile Ile Asp Val Val Ile Asp Phe Asn Phe Ser Asn Gln Ser
                            120
Ser Phe Cys Arg Thr Phe Lys Ser Ile Tyr Gly Val Ser Pro Lys Glu
                        135
Phe Lys Ser Glu His Ile Asn His Leu
<210> 5729
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 5729
Lys Gly Lys Trp Val Ser Phe Arg Glu Trp Arg Ala Arg Val Arg Phe
                                    10
Leu Asn Ser Leu Pro Leu Leu Arg Thr Glu Lys Thr Ile Gln Glu Ile
            20
                                25
                                                    30
Ser Tyr Leu Leu Gly Tyr Ser Asn Thr Ser Ser Phe Ile Ile Met Phe
                            40
Glu Lys Leu Ser Gly Thr Thr Pro Glu Lys Tyr Arg Lys Asn Ile
    50
<210> 5730
<211> 120
<212> PRT
<213> Enterobacter cloacae
<400> 5730
Ser Cys Leu Phe Leu Cys Phe Phe Cys Pro Phe Met Leu Ile Ile Phe
                                    10
Asn Thr Met Cys Val Ile Ile Ile Ala Thr Glu Leu Glu Lys Arg Cys
            20
                                25
                                                    30
Ile Met Lys Asn Val Leu Ser Leu Ser Leu Leu Phe Ile Ser Ser
        35
                            40
Gly Tyr Ala Ala Ser Glu Val Thr Tyr Leu Asn Pro Thr Pro Gln Gly
                        55
Ala Val Arg Ile Gly Glu Val Ser Phe Phe Lys Ala Gly Ser Ala Thr
                    70
                                        75
Gln Ser Glu Val Ile Gly Ser Leu Ser Lys Lys Ala Asp Ser Leu Gly
                                    90
Gly Thr His Phe Glu Ile Ser Ser Leu Asn Ser Ser Asp Asn Thr Tyr
                                105
Ala Thr Ala Ile Val Tyr Lys
                            120
        115
<210> 5731
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 5731
Thr Leu Gly Thr Val Leu Phe Leu Cys Phe Ser Ile Gly Leu Ala Ile
                                    10
Thr Met Val Ala Ile Gly Ala Val Ala Ala Val Ser Val Glu Gln Ala
                                25
Ser Lys Arg Trp Asp Gly Leu Asp Val Leu Ala Arg Arg Ala Pro Tyr
```

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Phe Ser Ser Ala Leu Ile Ala Leu Gly Gly Ile Tyr Met Gly Tyr His
                       55
Gly Trp Leu Gly Ile Thr Asn
<210> 5732
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 5732
Pro Asp Phe Asp Leu Pro Asn Thr Trp Gln Pro Thr Lys Leu Asp
                                    10
Leu Glu Asn Ile Leu Glu Pro Ser Pro Arg Arg Ile Trp Pro Asp Ala
            20
                                25
Tyr Glu Arg Leu Leu Glu Thr Ile Arg Gly Ile Gln Ala Leu Phe
                            40
Phe His Arg Asp Glu Val Glu Glu Ala Trp Lys Trp Val Asp Ser Ile
Thr Glu Ala Trp Ala Ala Asp Gln Asp Ala Pro Lys Pro Tyr Gln Ala
                    70
Gly Thr Trp Gly Pro Val Ala Ser Val Ala Met Ile Thr Arg Asp Gly
                8.5
                                    90
Arg Ser Trp Asn Glu Phe Glu
            100
<210> 5733
<211> 295
<212> PRT
<213> Enterobacter cloacae
<400> 5733
Ile Arg Gly Ala Phe Met Asn Pro Thr Leu Leu Arg Val Thr Gln Arg
                                    10
Ile Val Glu Arg Ser Lys Glu Thr Arg Ala Ala Tyr Leu Ala Arg Ile
                                25
Glu Gln Ala Lys Ser Glu Thr Val His Arg Ser Gln Leu Ala Cys Gly
                            40
Asn Leu Ala His Gly Phe Ala Ala Cys Gln Pro Gly Asp Lys Asp Ala
Leu Lys Ser Met Leu Arg Asn Asn Ile Ala Ile Ile Thr Ser Tyr Asn
                    7.0
Asp Met Leu Ser Ala His Gln Pro Tyr Glu Val Tyr Pro Ser Ile Ile
                                    90
Arg Asn Ala Leu His Ser Val Asn Ala Val Gly Gln Val Ala Gly Gly
                                105
Val Pro Ala Met Cys Asp Gly Val Thr Gln Gly Gln Asp Gly Met Glu
                            120
                                                125
Leu Ser Leu Leu Ser Arg Glu Val Ile Ala Met Ser Ala Ala Val Gly
                        135
                                            140
Leu Ser His Asn Met Phe Asp Gly Ala Leu Tyr Leu Gly Val Cys Asp
                    150
                                        155
Lys Ile Val Pro Gly Leu Val Met Ala Ala Leu Ser Phe Gly His Leu
                165
                                    170
Pro Ala Ile Phe Val Pro Ser Gly Pro Met Ala Ser Gly Leu Pro Asn
                                185
           180
Lys Glu Lys Val Arg Ile Arg Gln Leu Tyr Ala Glu Gly Lys Ala Asp
                            200
       195
                                                205
Arg Gln Ala Leu Leu Glu Ala Glu Ala Ala Ser Tyr His Ala Pro Gly
                        215
                                            220
```

Thr Cys Thr Phe Tyr Gly Thr Ala Asn Thr Asn Gln Met Val Val Glu

```
230
                                        235
Tyr Met Gly Met Gln Leu Pro Gly Ser Ser Phe Ile Gln Pro Asp Ala
                245
                                    250
Pro Leu Arg Lys Ala Leu Thr Glu Ala Ala Ser Arg Gln Val Thr Arg
                                265
Leu Thr Gly Asn Gly Asn Glu Trp Met Pro Met Gly Lys Met Val Asp
                            280
Glu Lys Val Ile Val Lys Arg
<210> 5734
<211> 129
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(15)
<220>
<221>UNSURE
<222>(94)
<400> 5734
Gln Asn Gly Arg His Met Leu Thr Cys Tyr Ala Leu Asn His Xaa Arg
Thr Lys Thr Gln Leu Ala Thr Ala Ala Gly Val Lys Leu Gln Ser Ile
                             · 25
Tyr Asn Trp Lys Glu Leu Val Pro Glu Thr Arg Ala His Arg Leu Glu
                            40
Thr Thr Phe Gly Arg Val Leu Thr Phe His Lys Thr Ile Phe Glu Pro
                        55
His Arg Lys Ala Gln Thr Thr Gly Lys Lys Asn Thr Ser Pro Pro Pro
                                        75
Arg Asp Ser Asn Leu Trp Lys Phe Gln Pro Thr Pro Ser Xaa Ala Phe
Cys Leu Ala Gly Ala Ala Glu Leu Arg Glu Gly Leu Ser Pro Glu Gly
            100
                                105
Asn Pro Ala Gln Ile Thr Pro Pro Arg Gly Gly Pro Pro Ser Pro Gly
                            120
Trp
<210> 5735
<211> 141
<212> PRT
<213> Enterobacter cloacae
<400> 5735
Asn Cys Leu Thr Met Lys Asn Met Asn Ser Leu Gly Gln Arg Ile Leu
                                    1.0
Ala Arg Arg Lys Glu Leu Lys Leu Thr Gln Arg Glu Ala Ala Lys Leu
            20
                                25
Ala Gly Val Ala His Val Thr Ile Ser Gln Trp Glu Arg Asp Glu Thr
                            40
Gln Pro Val Gly Ala Arg Leu Phe Ala Leu Ala Lys Ala Leu Ser Cys
                        55
Thr Pro Thr Trp Leu Met Phe Gly Asp Asp Asp Gln Ala Pro Val Pro
                   70
                                        75
Ala Glu Asp Ile Gln Leu Ala Pro Gln Leu Ser Asp Lys His Arg Glu
```

Leu Ile Asp Leu Tyr Asp Ser Leu Pro Glu Ser Glu Gln Glu Ala Gln 100 105 Leu Glu Gln Leu Arg Ala Arg Val Lys Asn Phe Asn Lys Leu Phe Glu 120 Glu Leu Leu Lys Ala Arg Gln Arg Gln Ser Lys Lys 130 135 <210> 5736 <211> 420 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(15) <400> 5736 Asn Gly Leu Gly Asp Ser Cys Pro Gly Leu Met Glu Lys Gly Xaa Trp 10 Ile Ser Gly Glu Leu Phe Val Pro Leu Pro Gly Tyr Leu Phe Gly Tyr 20 His Leu Glu Ser Gly Asp Ile Met Lys Met Lys Cys Asn Asn Arg Leu 4.5 Leu Arg Leu Ser Ala Ser Leu Thr Leu Ile Ser Leu Val Val Thr Ala 55 Ala Asn Ala Asn Gly Gln Ala Gly Ile Ser Pro Val Ala Ala Met 70 75 Thr Met Lys Glu Ser Ile Leu Phe Ala Leu Asp Arg Asp Pro Ser Val 8.5 Ser Gln Gln Ala Ala Gln Leu Gly Ile Gly Gln Ala Gln Ile Asp Glu 105 100 Ala Arg Ser Gly Trp Met Pro Gln Ile Ala Leu Asn Gly Arg Thr Gly 120 125 His Ser Gln Thr Thr Asp Ser Ser Gly Ser Leu Arg Asn Ser Ala Ala 135 140 Trp Gly Leu Ser Leu Thr Gln Leu Val Tyr Asp Phe Gly Lys Thr Asn 150 155 Asn Ser Ile Ser Gln Ser Ser Ala Gln Arg Asp Ser Tyr Arg Tyr Gln 170 175 Leu Met Ser Thr Met Ser Ala Val Ala Glu Lys Thr Ala Leu Ser Tyr 185 180 Val Glu Val Lys Arg Tyr Ser Asp Leu Leu Gln Ala Ala Lys Glu Asn 200 Val Gln Ala Leu Lys Asn Val Glu Gln Leu Ala Lys Leu Arg Ala Asp 215 Ala Gly Val Ser Ser Thr Ser Asp Glu Leu Gln Thr Arg Thr Arg Ile 230 235 Ala Gly Met Gln Ala Thr Val Glu Gln Tyr Asn Ala Ser Leu Asn Ser 250 245 Ala Arg Ala Arg Leu Ala Val Leu Thr Gly Ile Gln Ala Glu Arg Tyr 260 265 Ser Pro Val Pro Gly Gly Leu Ala Val Glu Pro Asp Ser Leu Asn Arg 280 285 Ile Asp Tyr Ser Leu Ile Pro Thr Val Met Ala Ala Gln Asn Met Glu 295 300 Arg Ser Ala Gln Tyr Gly Val Glu Thr Ala Lys Ser Gln His Trp Pro 310 315 Thr Leu Ser Leu Lys Gly Gly Arg Thr Arg Tyr Glu Ser Asp Asn Arg 325 330 Ala Tyr Trp.Asp Asp Gln Ile Gln Leu Asn Ile Asp Ala Pro Leu Tyr

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Gln Gly Gly Ala Val Ser Ala Arg Val Arg Gln Ala Glu Gly Ala Arg
         355
                             360
 Ala Met Ala Ser Ser Gln Val Asp Gln Ala Arg Phe Asp Val Leu Gln
                         375
                                              380
 Lys Ile Leu Arg Arg Thr Gly Arg Leu Asp Arg Gly Ala Trp Thr Asn
                     390
                                         395
 Gly Ser Arg Glu Thr Ser Ala Gly Lys Cys Val Ala Arg Pro Arg Cys
                 405
                                      410
 Leu Gln Lys
             420
 <210> 5737
. <211> 399
 <212> PRT
 <213> Enterobacter cloacae
 <220>
 <221>UNSURE
 <222>(386)
 <400> 5737
 Arg Ser Gly Gly Val Thr Gln Gln Ser Lys Thr Ser His Trp Ser Thr
                                     10
 Ile Met Ser Ile Ser Leu Lys Lys Ser Gly Met Leu Lys Leu Gly Leu
             20
                                 25
 Ser Leu Val Ala Met Thr Val Ala Ala Ser Val Gln Ala Lys Thr Leu
                             40
 Val Tyr Cys Ser Glu Gly Ser Pro Glu Gly Phe Asn Pro Gln Leu Phe
                         55
 Thr Ser Gly Thr Thr Tyr Asp Ala Ser Ser Val Pro Ile Tyr Asn Arg
                     70
                                          75
 Leu Val Glu Phe Lys Thr Gly Thr Thr Glu Val Ile Pro Gly Leu Ala
                 85
                                      90
 Glu Lys Trp Asp Ile Ser Glu Asp Gly Lys Thr Tyr Thr Phe His Leu
             100
                                 105
 Arg Gln Gly Val Lys Trp Gln Asp Ser Lys Glu Phe Lys Pro Thr Arg
                             120
                                                  125
 Asp Phe Asn Ala Asp Asp Val Val Phe Ser Phe Asp Arg Gln Lys Asn
                         135
 Ala Gln Asn Pro Tyr His Lys Val Ser Gly Gly Ser Tyr Glu Tyr Phe
                     150
                                          155
 Glu Gly Met Gly Leu Pro Asp Leu Ile Ala Glu Val Lys Lys Val Asp
                 165
                                      170
 Asp Lys Thr Val Gln Phe Val Leu Thr Arg Pro Glu Ala Pro Phe Leu
             180
                                 185
                                                      190
 Ala Asp Leu Ala Met Asp Phe Ala Ser Ile Leu Ser Lys Glu Tyr Ala
                             200
                                                  205
         195
 Asp Asn Met Leu Lys Ala Gly Thr Pro Glu Lys Val Asp Leu Asn Pro
                         215
                                             220
 Ile Gly Thr Gly Pro Phe Gln Leu Leu Gln Tyr Gln Lys Asp Ser Arg
                     230
                                         235
 Ile Leu Tyr Lys Ala Phe Pro Gly Tyr Trp Gly Thr Lys Pro Gln Ile
                 245
                                     250
 Asp Arg Leu Val Phe Ser Ile Thr Pro Asp Ala Ser Val Arg Tyr Ala
             260
                                 265
                                                      270
 Lys Leu Gln Lys Asn Glu Cys Gln Val Met Pro Tyr Pro Asn Pro Ala
                             280
 Asp Ile Ala Arg Met Lys Gln Asp Lys Asn Ile Asn Leu Leu Glu Gln
                         295
                                             300
 Ala Gly Leu Asn Val Gly Tyr Leu Ser Phe Asn Thr Glu Lys Lys Pro
```

 Phe
 Asp
 Asp
 Val
 Lys
 Val
 Arg
 Gln
 Ala
 Leu
 Thr
 Tyr
 Ala
 Val
 Asn
 Lys

 Glu
 Thr
 Ile
 Ile
 Lys
 Ala
 Val
 Tyr
 Gln
 Gly
 Ala
 Gly
 Val
 Ala
 Ala
 Lys

 Asn
 Leu
 Ile
 Pro
 Pro
 Thr
 Met
 Trp
 Gly
 Tyr
 Asn
 Asn
 Leu
 Lys
 Asp

 Tyr
 Thr
 Tyr
 Asp
 Pro
 Glu
 Lys
 Thr
 Glu
 Thr
 Val
 Ala
 Glu
 Lys
 Asp

 Pro
 Xaa
 Thr
 Arg
 Leu
 Tyr
 Arg
 Gln
 Pro
 Val
 Cys
 Asp
 Ala
 Gly
 Inch
 Inch

<210> 5738 <211> 112

<212> PRT

<213> Enterobacter cloacae

<400> 5738

Met Ala Ile Ala Asp Leu Asp Lys Gln Pro Asp Ser Val Ser Ser Val 10 Leu Lys Val Phe Gly Ile Leu Gln Ala Leu Gly Glu Glu Arg Glu Ile 20 25 Gly Ile Thr Glu Leu Ser Gln Arg Val Met Met Ser Lys Ser Thr Val 4.5 40 Tyr Arg Phe Leu Gln Thr Met Lys Ser Leu Gly Tyr Val Ala Gln Glu 55 Gly Glu Ser Glu Lys Tyr Ser Leu Thr Leu Lys Leu Phe Glu Leu Gly 70 75 Ala Arg Ala Leu Gln Asn Val Asp Leu Ile Arg Ser Ala Asp Ile Gln 8.5 90 Met Arg Glu Leu Ser Arg Leu Thr Lys Glu Thr Ile His Leu Gly Ala 100 105

<210> 5739 <211> 329

<212> PRT

<213> Enterobacter cloacae

165

<400> 5739

Asn Ser Tyr Ser Glu Asn Asn Phe Thr Leu Ser His Ser Phe Pro Met 10 Gln Lys Asn Val Ser Asp Gly Leu Pro Leu Pro Gln Arg Tyr Gly Ala Ile Ala Thr Ile Val Ile Gly Ile Ser Met Ala Val Leu Asp Gly Ala Ile Ala Asn Val Ala Leu Pro Thr Ile Ala Lys Asp Leu Asn Ala Ser Pro Ala Ser Ser Ile Trp Ile Val Asn Ala Tyr Gln Ile Ala Ile Val Ile Ser Leu Leu Ser Leu Ser Phe Leu Gly Asp Met Phe Gly Tyr Arg 90 Arg Val Tyr Gln Cys Gly Leu Val Val Phe Thr Leu Thr Ser Leu Phe 100 105 110 Cys Ala Leu Ser Asp Ser Leu His Thr Leu Thr Leu Ala Arg Ile Ala 120 125 Gln Gly Phe Gly Gly Ala Ala Leu Met Ser Val Asn Thr Ala Leu Ile 135 140 Arg Leu Ile Tyr Pro His Arg His Leu Gly Arg Gly Met Gly Ile Asn 150 155 Ser Phe Ile Val Ala Val Ser Ser Ala Ala Gly Pro Thr Ile Ala Ala

Ala Ile Leu Ser Val Ala Ser Trp Gln Trp Leu Phe Ala Ile Asn Val

```
180
                                185
                                                    190
Pro Leu Gly Ile Val Ala Ile Phe Phe Ala Leu Arg Tyr Leu Pro Glu
                                               205
       195
                           200
Asn Gly Pro Lys Asn Thr Met Pro Arg Phe Asp Leu Pro Ser Ala Val
                        215
                                          220
Met Asn Ala Leu Thr Phe Gly Leu Leu Ile Thr Ala Leu Ser Gly Phe
                   230
                                       235
Ala Gln Gly Gln Ser Leu Ser Leu Ile Ala Ala Glu Ile Val Ala Met
                245
                                   250
Leu Ile Ile Gly Phe Phe Phe Val Arg Arg Gln Leu Ala Leu Pro Val
                                265
Pro Leu Leu Pro Val Asp Leu Leu Arg Ile Pro Leu Phe Ser Leu Ser
                            280
Ile Cys Thr Ser Ile Cys Ser Phe Cys Ala Gln Met Leu Ala Leu Val
                        295
                                            300
Ala Leu Pro Phe Phe Leu Gln Ser Val Thr Gly Arg Ser Val Val Ser
                    310
                                        315
Ser Pro Ala Val Glu Val Tyr Leu Pro
                325
<210> 5740
<211> 237
<212> PRT
<213> Enterobacter cloacae
<400> 5740
Asn Asp Ile Ser Ser Gln Pro Gly Ser Lys Met Lys Ile Leu Ile Val
                                    10
Glu Asp Glu Ile Lys Thr Gly Glu Tyr Leu Ser Lys Gly Leu Thr Glu
            20
Ala Gly Phe Val Val Asp His Ala Asp Asn Gly Leu Thr Gly Tyr His
                            40
Leu Ala Met Thr Ala Glu Tyr Asp Leu Val Ile Leu Asp Ile Met Leu
                        55
                                            60
Pro Asp Val Asn Gly Trp Asp Ile Ile Arg Met Leu Arg Thr Ala Gly
                                        75
                    70
Lys Gly Met Pro Val Leu Leu Thr Ala Leu Gly Thr Ile Glu His
                85
                                    90
Arg Val Lys Gly Leu Glu Leu Gly Ala Asp Asp Tyr Leu Val Lys Pro
            100
                                105
Phe Ala Phe Ala Glu Leu Leu Ala Arg Val Arg Thr Leu Leu Arg Arg
                            120
Gly Asn Thr Met Ile Thr Glu Ser Gln Phe Lys Val Ala Asp Leu Ser
                        135
                                            140
Ile Asp Leu Val Ser Arg Lys Val Ser Arg Ala Gly Asn Arg Ile Val
                    150
                                        155
Leu Thr Ser Lys Glu Phe Ser Leu Leu Glu Phe Phe Ile Arg His Gln
                165
                                    170
Gly Glu Val Leu Pro Arg Ser Leu Ile Ala Ser Gln Val Trp Asp Met
                                185
                                                    190
Asn Phe Asp Ser Asp Thr Asn Ala Ile Asp Val Ala Val Lys Arg Leu
                                            · 205
       195
                            200
Arg Ala Lys Ile Asp Asn Asp Tyr Glu Thr Lys Leu Ile Gln Thr Val
                       215
Arg Gly Val Gly Tyr Met Leu Glu Val Pro Asp Ala
                   230
<210> 5741
<211> 114
<212> PRT
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<213> Enterobacter cloacae

<400> 5741 Ser Arg Gln Ser Gly Ala Trp Ala Thr Cys Trp Arg Ser Arg Met His 10 Ser Lys Pro Ser Arg Arg Pro Phe Ser Leu Ala Leu Arg Leu Thr Phe 25 Phe Ile Ser Leu Ser Thr Ile Leu Ala Phe Ile Ala Phe Thr Trp Phe 40 Met Leu His Ser Val Glu Asn His Phe Ala Glu Gln Asp Val Ser Asp 55 Leu Gln Gln Ile Ser Thr Thr Leu Asn Arg Ile Leu Gln Ser Pro Val 70 7.5 Asp Pro Asp Asp Lys Lys Ile Ser Lys Ile Lys Glu Ser Ile Ala Ser 85 90 Tyr Arg Asn Val Ala Leu Leu Leu Leu Asn Pro Arg Gly Gly Ser Ala 100 105 Leu <210> 5742 <211> 201 <212> PRT <213> Enterobacter cloacae <400> 5742 Ile Ile Leu Gly Cys His Gly Glu Met Ile Ser Gly Lys Thr Ile Ile Ser Val Ile His Tyr Glu Pro Cys Leu Cys Lys Pro Phe Ala Glu Ile Phe Thr Cys Phe Asn Phe Val Phe Asp Asp Gln Tyr Phe His Leu Ala Pro Arg Leu Ala Ala Asn Val Ile Leu Leu Arg Pro Arg Ser Leu Ser Thr Asp Tyr Ser Lys Asn Asp Asn Ile Val Ile Ile Leu Ser Pro Gly Lys Gln Arg Ala Leu Gly Lys Val Pro Leu Ser Ile Leu Trp Thr Ser Phe Glu Pro Phe Thr Arg Ser Ala Trp Thr Arg Ser Val Met Phe Lys 105 Leu Lys Leu Ser Ile Ser Thr Ile Phe Ile Leu Ala Gly Cys Val 120 125 Ser Leu Ala Pro Glu Tyr Gln Arg Pro Ala Ala Pro Val Pro Gln Gln 135 140 Phe Ser Leu Ser His Asn Ser Leu Thr Pro Ala Val Asn Gly Tyr Gln 150 155 Asp Thr Gly Trp Arg Asn Phe Phe Val Asp Pro Gln Val Thr Arg Leu 165 170 Ile Gly Glu Ala Leu Thr Asn Asn Arg Asp Leu Arg Met Ala Ala Leu 185 180 Asn Val Glu Glu Ala Arg Ala Gln Phe <210> 5743 <211> 432 <212> PRT <213> Enterobacter cloacae <400> 5743 Phe Ser Phe Ile Val Arg Val Glu Ser Ala Val Ser Leu Ser Leu Trp

10

Gln Gln Cys Leu Ala Arg Leu Gln Asp Glu Leu Pro Ala Thr Glu Phe

20 25 Ser Met Trp Ile Arg Pro Leu Gln Ala Glu Leu Ser Asp Asn Thr Leu 40 Ala Leu Tyr Ala Pro Asn Arg Phe Val Leu Asp Trp Val Arg Asp Lys 55 Tyr Leu Asn Asn Ile Asn Gly Leu Leu Asn Asp Phe Cys Gly Ser Asp 70 75 Ala Pro Gln Leu Arg Phe Glu Val Gly Thr Lys Pro Val Thr Gln Thr 85 90 Val Arg Glu Val Val Asn Val Ala Ala Pro Ala Gln Ala Ala Pro Ala 100 105 Pro Ala Pro Arg Val Ala Pro Ala Arg Gln Gly Trp Asp Asn Val Pro 120 125 Ala Pro Ala Glu Pro Thr Tyr Arg Ser Asn Val Asn Val Lys His Thr 135 Phe Asp Asn Phe Val Glu Gly Lys Ser Asn Gln Leu Ala Arg Ala Ala 150 155 Ala Arg Gln Val Ala Asp Asn Pro Gly Gly Ala Tyr Asn Pro Leu Phe 170 Leu Tyr Gly Gly Thr Gly Leu Gly Lys Thr His Leu Leu His Ala Val 185 Gly Asn Gly Ile Met Ala Arg Lys Pro Asn Ala Lys Val Val Tyr Met 200 His Ser Glu Arg Phe Val Gln Asp Met Val Lys Ala Leu Gln Asn Asn 215 Ala Ile Glu Glu Phe Lys Arg Tyr Tyr Arg Ser Val Asp Ala Leu Leu 230 235 Ile Asp Asp Ile Gln Phe Phe Ala Asn Lys Glu Arg Ser Gln Glu Glu 245 250 Phe Phe His Thr Phe Asn Ala Leu Leu Glu Gly Asn Gln Gln Ile Ile 265 Leu Thr Ser Asp Arg Tyr Pro Lys Glu Ile Asn Gly Val Glu Asp Arg 275 280 285 Leu Lys Ser Arg Phe Gly Trp Gly Leu Thr Val Ala Ile Glu Pro Pro 295 300 Glu Leu Glu Thr Arg Val Ala Ile Leu Met Lys Lys Ala Asp Glu Asn 310 315 Asp Ile Arg Leu Pro Gly Glu Val Ala Phe Phe Ile Ala Lys Arg Leu 325 330 Arg Ser Asn Val Arg Glu Leu Glu Gly Ala Leu Asn Arg Val Ile Ala 345 Asn Ala Asn Phe Thr Gly Arg Ala Ile Thr Ile Asp Phe Val Arg Glu 360 365 Ala Leu Arg Asp Leu Leu Ala Leu Gln Glu Lys Leu Val Thr Ile Asp 375 380 Asn Ile Gln Lys Thr Val Ala Glu Tyr Tyr Lys Ile Lys Val Ala Asp 390 395 Leu Leu Ser Lys Arg Arg Ser Arg Ser Val Ala Arg Pro Arg Gln Met 410 Ala Met Ala Leu Ala Lys Gln Leu Ser Asn His Ser Leu Pro Glu Ile

<210> 5744

<211> 96

<212> PRT

<213> Enterobacter cloacae

## <400> 5744

Phe Asn Lys Arg Gly Ser Gly Ser Ser Val Val Lys Ile Gln Met Ala 1 5 10 15 Leu Thr Thr Leu Leu Arg Phe Glu His Glu Thr Val Met Pro Pro Glu

<400> 5747

20 25 Met Lys Phe Ser Lys Arg Glu Arg Glu Ile Leu Lys Trp Thr Ala Glu 40 45 Gly Lys Thr Ser Ala Glu Ile Ala Ile Ile Leu Ser Ile Ser Glu Asn 55 60 Thr Val Asn Phe His Gln Lys Asn Met Gln Lys Lys Phe Asn Ala Pro 70 75 Asn Lys Ile Gln Ile Ala Cys Tyr Ala Ala Ala Thr Gly Leu Ile <210> 5745 <211> 154 <212> PRT <213> Enterobacter cloacae <400> 5745 Thr Gln Leu Ala Val Ser Ser Val Ile Pro Ile Leu Glu Thr Phe Pro 10 Leu Ile Asn Val Leu Leu Val Asp Asp His Glu Leu Val Arg Ala Gly 20 25 Ile Arg Arg Ile Leu Glu Asp Ile Lys Gly Ile Lys Val Ala Gly Glu Ala Cys Cys Gly Glu Asp Ala Val Lys Trp Cys Arg Ala Asn Ser Ala 55 Asp Val Val Leu Met Asp Met Asn Met Pro Gly Ile Gly Gly Leu Glu 70 75 Ala Thr Arg Lys Ile Ala Arg Met Phe Val Asp Thr Leu Val Ile Met 8.5 90 Leu Thr Val His Thr Glu Asn Pro Leu Pro Ala Arg Val Met Gln Ala 100 105 Gly Ala Ala Gly Tyr Leu Ile Lys Ser Ala Ala Pro Gln Gly Ser Gly 120 Gln Cys Asp Pro Pro Pro Tyr Thr Pro Gly Gln Gly Tyr Ile Pro Ser 135 140 Glu Tyr Ala Gln Gln Asn Gly Ser Glu Ser 150 <210> 5746 <211> 75 <212> PRT <213> Enterobacter cloacae <400> 5746 Met Ser Thr Pro Glu Phe Ala Thr Ala Glu Asn Asn Gln Glu Leu Ala Gln Glu Val Asn Cys Leu Lys Ser Leu Leu Thr Leu Met Leu Gln Ala Met Gly Gln Ala Asp Ala Gly Arg Val Ile Ile Lys Met Glu Lys Gln 40 Ile Ala Gln Met Glu Asp Gln Ala Glu Ser Ala Val Phe Ala Asn Thr 55 Val Lys Gln Ile Lys Gln Ala Tyr Arg Gln <210> 5747 <211> 122 <212> PRT <213> Enterobacter cloacae

His Gly Ser His Ala Ile Ser Leu Tyr Ser Gln His Ala Phe Asp Pro

10 Arg Gln Glu Thr Leu Ile Leu Thr Glu Thr Val Thr Thr Met Ser Lys 25 Ala Ile Met Gln Gln Thr Tyr Asn Phe Glu Ala Leu His Asp Lys Gly 40 Leu Ala Glu His Phe Leu Asn Ala Gly Lys His Leu Ser Gly Glu Val 55 Glu Val Leu Gly Ser Ala Ile Arg Cys Ile Met Leu Thr Gly Asp Asn Leu Ser Asn Lys Glu Ile Ile Leu Gln Leu Ile His Ala Leu Glu Ile 90 Thr Glu Glu Pro Glu Ala Cys Asp Val Ile Arg Asn Thr Leu Glu Ile 105 Val Val Gly Phe Thr Arg Asp Asp Ile 115 <210> 5748 <211> 296 <212> PRT <213> Enterobacter cloacae <400> 5748 Val Val Gln Ile Lys Pro Phe Ile Pro His Arg Lys Val Gly Leu Asp 10 Lys Leu Tyr Leu Ile Arg Val Trp Phe Ser Asp Ala Arg Val Phe Arg Asp Glu Val Cys Ala Val Lys Asn Asn Pro Gln Gly Phe Ser Asp Ala 40 Glu Ile Asp Ile Leu Gln Ala Leu His Lys Arg Glu Ile Phe Ala Ala Tyr Gln Ile Ile Thr Asp Gly Asp Lys Lys Gly Val Gly Phe Glu Ile 7.5 Leu Leu Arg Trp His Lys Asn Gly Gln Val Leu Lys Ala Ala Gln Phe 90 Leu Gly Gly Val Lys Asn Gly Glu Ile Trp Leu Lys Leu Thr Ala Leu 100 105 Val Ile His Ala Ala Val Ser Gly Ile Asn Arg Tyr Asn Gly Lys Tyr 120 Tyr Phe Ser Val Asn Ile Pro Pro Pro Leu Ala Thr Gly Asn Ala Leu 135 Pro Gly Met Ala Lys Lys Ala Val Glu Met Leu Lys Pro Gln Trp. 150 155 Ala Gly Lys Leu Val Phe Glu Leu Ala Glu Ala Ile Asp Val Thr Lys 170 Asp Pro Asn Ile Pro Val Thr Leu Gln Arg Leu Arg Ala Glu Gly Cys 185 Arg Leu Phe Leu Asp Asp Cys Phe Ser Arg Asp Tyr Ala Met Leu Pro 200 Ile Arg Gln Ile Asn Val Asp Gly Leu Lys Leu Asp Arg Asp Ile Val 215 220 Glu His Phe Val Ala Asn Asp Asn Asp Tyr Ser Ile Ile Lys Ala Ile 235 230 Gln Ile Tyr Ser Asp Met Thr Gly Arg Glu Cys Val Ala Glu Gly Val 245 250 Asp Ser Glu Glu Lys Phe Lys Lys Leu Val Ala Leu Gly Val Lys Arg 265 Phe Gln Gly Tyr Tyr Leu Ser Arg Ala Val Lys Glu Glu Glu Leu Asp 280 Arg Met Val Arg Leu Phe Ser

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<210> 5749
<211> 186
<212> PRT
<213> Enterobacter cloacae
<400> 5749
Thr Asn Val Ile His Ala Thr His Ala Ala Gln Phe Ala Lys Ile Phe
                                    10
Gly Val Lys Val Asp Asp Phe Ser Pro Ser Leu Ala Ala Glu Ile Ser
                                25
Ala Met Phe Glu Ala Ile Ala Asn Gly Arg Asn His Ser Ser Val Tyr
Glu Tyr Pro Leu Leu Thr Glu Val Gln Ala Gly Ser Phe Cys Pro Val
                        55
Asn Thr Tyr Thr Glu Arg Asp Ala Lys Glu Trp Val Ser Thr Thr Val
                    70
                                        75
Lys Ala Ser Asp Ser Ala Phe Trp Leu Glu Val Ser Gly His Ser Met
                                     90
                85
Thr Ala Pro Pro Gly Val Lys Pro Ser Phe Pro Glu Gly Met Leu Ile
                                105
Leu Ile Asp Pro Glu Gln Asp Val Glu Pro Gly Asp Phe Cys Val Ala
        115
                            120
Gly Ile Phe Asn Asp Ser Glu Val Thr Phe Lys Lys Tyr Val Arg Glu
                        135
                                             140
Asp Gly Lys Pro Trp Leu Glu Pro Leu Asn Pro Ser Pro Arg Tyr Gln
                    150
                                        155
Ala Ile Glu Cys Asn Glu Asn Cys Arg Ile Ile Gly Lys Val Val Lys
                165
                                    170
Ala Gln Trp Pro Glu Asn Ile Phe Glu
            180
                                185
<210> 5750
<211> 156
<212> PRT
<213> Enterobacter cloacae
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<221>UNSURE
<222>(133)
<220>
<221>UNSURE
<222>(135)
<220>
<221>UNSURE
<222>(156)
<400> 5750
Lys Ser Ser Gly Arg Arg Trp Leu Phe Gly Cys Cys Arg Ala Gly Ala
1
                                    10
Val Arg Leu Phe Leu Cys Arg Cys Val Ala Gly Phe Val Leu Leu Gly
                                25
Gly Pro Phe Pro Ala Ala Val Pro Arg Leu Leu Arg Val Leu Leu
                            40
Phe Arg Arg Cys Pro Arg Trp Ser Arg Leu Arg Leu Ala Cys Ala Gly
                        55
                                            60
Phe Arg Val Ala Val Phe Val Arg Arg Ala Ser Phe Gly Phe Ala Phe
                    70
                                        75
Cys Ser Cys Pro Ser Val Leu Ser Arg Phe Arg Trp Cys Val Leu Trp
```

```
Ala Leu Arg Arg Leu Lys Arg Gly Met Glu Gln Ala Gln Pro Leu Ser
            100
                                105
Thr Phe Leu Phe Asn Ser Leu Met Pro Gln Val Asp Leu Ser Thr Pro
                            120
Val Arq Arq Ala Xaa Leu Xaa Thr Leu Ala Leu Pro Leu Ile Ser His
                        135
Val Pro Gly Glu Thr Leu Arg Ile Tyr Leu Arg Xaa
<210> 5751
<211> 110
<212> PRT
<213> Enterobacter cloacae
<400> 5751
Phe Phe Leu Ser Ala Leu Gly Gly Glu Asn Leu Arg Val Val Asp Gly
                                    10
Phe Leu Asp Val Val Ala Leu Ala Leu Phe Val Phe Phe Ala Val
            20
Ala Ser Leu Gly Ser Ser Ser Ser Ala Val Leu Phe Leu Leu Phe
                            40
Arg Val Ser Phe Phe Val Phe Cys Cys Phe Asp Gly Val Arg Ala Gly
                        55
                                            60
Leu Val Ser Ala Trp Arg Ala Leu Val Ser Ala Leu Pro Phe Leu Ser
                    70
                                        75
Val Gly Arg Pro Leu Val Ser Leu Phe Val Pro Ala Arg Arg Cys Cys
                                    90
                                                         95
Pro Gly Phe Ala Gly Ala Phe Cys Gly Leu Cys Gly Val
                                105
                                                    110
<210> 5752
<211> 65
<212> PRT
<213> Enterobacter cloacae
<400> 5752
Gly His Arg Asn Ser Gly His Trp Cys Gly Thr Ser Ser Arg Ser Leu
Leu Gln Ile Pro Gly Cys Leu Ser Met Phe Ala Leu Val Asp Val Asn
                                25
Ser Phe Tyr Ala Ser Cys Glu Thr Val Phe Arg Pro Asp Leu Arg Gly
                            40
                                                45
Lys Pro Val Val Leu Ser Asn Asn Asp Leu Ser Gly Glu Lys Cys
65
<210> 5753
<211> 86
<212> PRT
<213> Enterobacter cloacae
<400> 5753
Ser Gly Asp Lys Met Tyr Ile Ser Glu Ile Gln Ile Glu Asn Phe Arg
Leu Phe Asp Ser Ala Glu Lys Ala Phe Val Leu Ser Leu Asn Pro Gly
Leu Thr Ala Leu Val Gly Glu Asn Asp Ala Gly Lys Thr Ala Val Ile
Asp Ala Leu Arg Leu Val Leu Gly Thr Arg Asp Gln Glu Met Leu Arg
```

```
Ile Asp Met Leu Ile Met His His Trp Gly Glu Ala Lys Ser Arg Thr
                    70
                                        75
Ser Pro Phe Arg Ser
<210> 5754
<211> 275
<212> PRT
<213> Enterobacter cloacae
<400> 5754
Gly Tyr Asn Met Ala Phe Lys Phe Lys Thr Phe Ala Ala Val Gly Ala
                                    10
Leu Ile Gly Ser Leu Ala Leu Val Gly Cys Gly Gln Asp Glu Lys Asp
            20
                                25
Pro Asn His Ile Lys Val Gly Val Ile Val Gly Ala Glu Gln Gln Val
                            40
Ala Glu Ala Ala Gln Lys Ile Ala Lys Glu Lys Tyr Gly Leu Asp Val
Glu Leu Val Thr Phe Asn Asp Tyr Val Leu Pro Asn Glu Ala Leu Ser
                    70
Lys Gly Asp Ile Asp Ala Asn Ala Phe Gln His Lys Pro Tyr Leu Asp
                                    90
Gln Gln Ile Lys Asp Arg Gly Tyr Lys Leu Val Ala Val Gly Asn Thr
                                105
Phe Val Tyr Pro Ile Ala Gly Tyr Ser Lys Lys Ile Lys Ser Leu Asp
                            120
                                                 125
Glu Leu Gln Pro Gly Ser Gln Val Ala Val Pro Asn Asp Pro Thr Asn
                        135
Leu Gly Arg Ser Leu Leu Leu Gln Lys Val Gly Leu Ile Lys Leu
                    150
                                        155
Lys Glu Gly Val Gly Leu Leu Pro Thr Val Leu Asp Val Thr Glu Asn
                165
                                    170
Pro Lys Asn Leu Lys Ile Val Glu Leu Glu Ala Pro Gln Leu Pro Arg
            180
                                185
Ser Leu Asp Asp Ala Gln Ile Ala Leu Ala Val Ile Asn Thr Tyr
                            200
                                                 205
        195
Ala Ser Gln Ile Gly Leu Thr Pro Ala Lys Asp Gly Ile Phe Val Glu
                                             220
                        215
Asp Lys Asp Ser Pro Tyr Val Asn Leu Ile Val Thr Arg Glu Asp Asn
                    230
                                        235
Lys Asp Ala Glu Asn Val Lys Lys Phe Ile Gln Ala Tyr Gln Ser Glu
                                    250
                245
Glu Val Tyr Gln Glu Ala Asn Lys Val Phe Asn Gly Gly Ala Val Lys
                                265
Gly Trp
        275
<210> 5755
<211> 310
<212> PRT
<213> Enterobacter cloacae
<400> 5755
Asn Ser Arg Arg Gly Ser Ser Ser Pro Val Val Lys Thr Pro Val Arg
                                    10
Gly Val Ala Ser Leu Lys Ser Asn Pro Asp Gly Ala Ser Cys Leu Gly
                                25
Pro Met Ala Gly Leu Glu Lys Gln Arg Glu Gln Tyr Ser His Ala Val
                            40
```

Gln Ala Leu Ser Asp Pro Asp Arg Thr Arg Leu Val Leu Val Ala Arg

```
55
                                            60
Leu Gln Lys Ser Thr Leu Gln Glu Val Ala Arg Thr His Asp Glu Leu
                   70
                                       75
Ala Ala Ile Gly Leu Lys Asn Gln Tyr Leu Val Ile Asn Gly Val Leu
               85
                                   90
Pro Glu Thr Glu Ala Val Asn Asp Thr Leu Ala Ala Ile Trp Gly
                                105
Arg Glu Gln Glu Ala Leu Ala Ser Leu Pro Ala Gly Leu Asp Ala Leu
                            120
Pro Thr Asp Thr Leu Phe Leu Gln Pro Val Asn Met Val Gly Val Ser
                        135
                                            140
Ala Leu Arg Gly Leu Leu Thr Ser Gln Pro Glu Thr Ala Ser Phe Ala
                    150
                                        155
Glu Val Ser Ala Leu Gln Lys Pro Ala Ile Ser Ser Leu Ser Ala Leu
                165
                                    170
Val Asp Glu Ile Ala Leu Asn Glu His Gly Leu Ile Met Leu Met Gly
           180
                                185
Lys Gly Gly Val Gly Lys Thr Thr Met Ala Ala Ile Ala Val Arg
                            200
                                                205
        195
Leu Ala Glu Met Gly Phe Asp Val His Leu Thr Thr Ser Asp Pro Ala
                        215
                                            220
Ala His Leu Ser Thr Thr Leu Asn Gly Ser Leu Asn Asn Leu Gln Val
                    230
                                        235
Ser Arg Ile Asp Pro His Asp Glu Thr Glu Arg Tyr Arg Gln His Val
                245
                                    250
Leu Glu Thr Lys Gly Arg Asp Leu Asp Glu Ala Gly Lys His Leu Leu
                                265
Glu Glu Asp Leu Arg Ser Pro Cys Thr Glu Glu Ile Ala Val Phe Gln
                            280
Ala Phe Ser Arg Val Ile Arg Glu Ala Gly Lys Arg Phe Val Val Met
                        295
                                            300
His Thr Ser Ser Pro Ser
<210> 5756
<211> 61
<212> PRT
<213> Enterobacter cloacae
<400> 5756
Asn Arg Asn Thr Thr Ser Ala Glu Lys Val Glu Asn Val Val Lys Pro
Pro Gln Lys Pro Val Val Ile Arg Thr Phe His Ile Gly Ser Met Leu
                                25
Val Met Arg Leu Asn Gln Ala Ser Pro Ile Pro Ile Ile Asn Ala Pro
                            40
Ile Arg Phe Ala Ala Ser Val Pro Ile Gly Met Ala
<210> 5757
<211> 315
<212> PRT
<213> Enterobacter cloacae
<400> 5757
Cys Arg Gly Leu Asn Arg Met Leu Lys Ser His Arg Ala Thr Leu Pro
                                    10
Val Pro Pro Pro Ile Lys Thr Ala Ile Ser Ser Cys Asn Thr Val Asn
Thr Cys Tyr Leu Leu Cys Lys Cys Val Glu Cys Asn Ala Val Phe Asp
```

```
Arg Glu Thr Ile Met Tyr Val Ala Val Gly Gln Phe Ala Val Thr Pro
                        5.5
                                            60
Asp Trp Asn Glu Asn Ala Glu Lys Cys Val Ser Leu Met His Ala Ala
                    70
                                        75
Lys Gln Lys Gly Ala Ser Leu Leu Val Leu Pro Glu Ala Leu Leu Ala
                85
                                    90
Arg Asp Asp Gly Asp Pro Asp Leu Ser Val Lys Ser Ala Gln Thr Leu
                                105
Glu Gly Ala Phe Leu Lys Arg Leu Leu Ala Glu Ser Val Gly Asn Thr
                            120
Leu Thr Thr Ile Leu Thr Val His Ile Pro Ser Ser Pro Gly Arg Ala
                        135
                                            140
Val Asn Thr Leu Val Ala Ile Arg Glu Gly Ala Ile Val Ala Ser Tyr
                    150
                                        155
Ala Lys Leu His Leu Tyr Asp Ala Phe Ser Val Gln Glu Ser Arg Leu
                165
                                    170
Val Asp Pro Gly Ser Val Ile Pro Pro Leu Ile Glu Val Glu Gly Phe
            180
                                185
Lys Val Gly Leu Met Thr Cys Tyr Asp Ile Arg Phe Pro Glu Leu Ala
                            200
        195
Leu Asn Leu Ala Leu Gln Gly Ala Glu Val Leu Val Leu Pro Ala Ala
                                            220
                        215
Trp Val Lys Gly Pro Leu Lys Glu His His Trp Ala Thr Leu Leu Ala
                    230
                                        235
Ala Arg Ala Leu Asp Thr Thr Cys Tyr Val Val Ala Ala Gly Glu Cys
                                    250
                245
Gly Asn Lys Asn Ile Gly Gln Ser Arg Val Val Asp Pro Leu Gly Val
            260
                                265
Thr Val Val Ala Ala Ala Glu Thr Pro Ala Leu Leu Thr Glu Ile
                            280
Ile Ser Ala Arg Ile Ala Leu Ala Arg Gln Gln Leu Pro Val Leu Arg
                        295
                                            300
Asn Arg Arg Phe Ala Pro Pro Gln Leu Met
                    310
                                        315
<210> 5758
<211> 132
<212> PRT
<213> Enterobacter cloacae
<400> 5758
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Gln Val Leu Thr Val Leu Gln Leu Leu Ile Ala Val Phe Ile Gly Gly 10 Gly Thr Gly Ser Val Ala Arg Trp Leu Leu Ser Met Arg Phe Asn Pro 25 Leu His Gln Ala Ile Pro Met Gly Thr Leu Ala Ala Asn Leu Ile Gly 40 Ala Phe Ile Ile Gly Met Gly Leu Ala Trp Phe Asn Arg Met Thr Asn 55 Ile Asp Pro Met Trp Lys Val Leu Ile Thr Thr Gly Phe Cys Gly Gly 70 75 Leu Thr Thr Phe Ser Thr Phe Ser Ala Glu Val Val Phe Leu Phe Gln 85 90 Glu Gly Arg Met Gly Trp Ala Leu Thr Asn Ile Ala Val Asn Met Leu 105 100 Gly Ser Phe Ala Met Thr Ala Ile Ala Phe Trp Leu Phe Ser Ser Ala 120

Ser Gly His 130 <211> 152

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<212> PRT
<213> Enterobacter cloacae
<400> 5759
Leu His Met Asn Ile Leu Ile Thr Thr Ala Phe Thr Ala Leu Phe
Cys Gly Ala Ala Phe Ala Gln Ser Ser Asp Ile Ala His Glu Ala His
                                25
Arg Phe Val Asn Asn Ala Ser Ala Val Ser His Val Asn Ser Ser Thr
His Glu Asn Leu Pro Asp Arg Val Asn Lys Asn Asn Thr Pro Ser Phe
                        55
Ser Glu Met Asn Glu His Glu Arg Ala Ile Val Ala His Ser Phe Met
                                        75
Asn Asn Ser Ala Ser Tyr Ala His Gln Lys Met Ile Glu Glu His Lys
                                    90
Lys Met Leu Ser Gly Ser Asp Ala Asn Ser Lys Thr Ser Ser Ser Ser
                                105
Phe Asn Glu Leu Asn Ala Gly Glu Lys Ala Ala Leu Val His Glu Gln
                            120
Val Asn Asn Ala Gly Ala Glu Ala His Gln Thr Gln Ala Arg Lys Leu
                        135
Arg Gly Leu Tyr Ser Thr Arg
<210> 5760
<211> 279
<212> PRT
<213> Enterobacter cloacae
<400> 5760
Thr Pro Pro Cys Thr Leu Val Leu Pro Ala Gly Trp Gly Arg Pro Ile
                                    10
Ala Gly Ala Gly Gly Arg Met Gly Arg Gln Leu Ile Gln Ala Ala Leu
Gln Met Asp Gly Val Ala Leu Gly Ala Ala Leu Glu Arg Glu Gly Ser
                            40
Ser Leu Leu Gly Ala Asp Ala Gly Glu Leu Ala Gly Ala Gly Lys Thr
Gly Val Thr Val Gln Ser Ser Leu Glu Ala Val Lys Glu Asp Phe Asp
Val Phe Ile Asp Phe Thr Arg Pro Glu Gly Thr Leu Ala His Leu Ala
                                    90
Phe Cys Arg Gln His Gly Lys Gly Met Val Ile Gly Thr Thr Gly Phe
                                105
Asp Asp Ala Gly Lys Gln Ala Ile Gln Asp Ala Ala Thr Asp Ile Ala
                            120
Ile Val Phe Ala Ala Asn Phe Ser Val Gly Val Asn Val Met Leu Lys
                        135
                                            140
Leu Leu Glu Lys Ala Ala Lys Val Met Gly Asn Tyr Thr Asp Ile Glu
                    150
                                        155
Ile Val Glu Ala His His Arg Tyr Lys Val Asp Ala Pro Ser Gly Thr
                                    170
                165
Ala Leu Ala Met Gly Glu Ala Ile Ala His Ala Leu Asp Arg Asp Leu
                                                    190
            180
                                185
Lys Glu Cys Ala Val Tyr Thr Arg Glu Gly His Thr Gly Glu Arg Val
       195
                            200
                                                205
Pro Gly Thr Ile Gly Phe Ala Thr Val Arg Ala Gly Asp Ile Val Gly
                        215
                                            220
```

Glu His Thr Ala Met Phe Ala Asp Ile Gly Glu Arg Val Glu Ile Thr

```
230
                                       235
His Lys Ala Ser Ser Arg Met Thr Phe Ala Asn Gly Ala Val Arg Ala
              245
                                250
Ala Leu Trp Leu Asn Ala Lys Glu Lys Gly Leu Phe Asp Met Arg Asp
                                265
           260
Val Leu Asp Leu Asn Asn Leu
       275
<210> 5761
<211> 130
<212> PRT
<213> Enterobacter cloacae
<400> 5761
Tyr Ala Asn Lys Val Ser Glu Tyr Ser Leu Glu Gly Val Leu Ile Lys
1
                                    10
Ser Ala Leu Leu Val Leu Glu Asp Gly Thr Gln Phe Ile Gly Arg Ala
            20
                                25
Ile Gly Ala Thr Gly Ser Ala Val Gly Glu Val Val Phe Asn Thr Ser
Met Thr Gly Tyr Gln Glu Ile Leu Thr Asp Pro Ser Tyr Ser Arg Gln
                       55
Ile Val Thr Leu Thr Tyr Pro His Ile Gly Asn Val Gly Thr Asn Ala
                    70
                                        75
Ala Asp Glu Glu Ser Ser Gln Val His Ala Gln Gly Leu Val Ile Arg
                                    90
                85
Asp Leu Pro Leu Ile Ala Ser Asn Phe Arg Asn Thr Glu Asp Leu Ser
            100
                                105
                                                    110
Ser Tyr Leu Lys Arg His Asn Ile Val Ala Ile Ala Asp Ile Asp Thr
                            120
                                                125
Arg Lys
   130
<210> 5762
<211> 423
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(417)
<400> 5762
Cys Met Glu Phe Ser Val Lys Ser Gly Ser Pro Glu Lys Gln Arg Ser
                                    10
Ala Cys Ile Val Val Gly Val Phe Glu Pro Arg Arg Leu Ser Pro Ile
Ala Glu Gln Leu Asp Lys Ile Ser Asp Gly Tyr Ile Ser Ala Leu Leu
Arg Arg Gly Glu Leu Glu Gly Lys Pro Gly Gln Thr Leu Leu His
                        55
His Val Pro Asn Val Leu Ser Glu Arg Ile Leu Leu Ile Gly Cys Gly
                    70
                                        75
Lys Glu Arg Glu Leu Asp Glu Arg Gln Tyr Lys Gln Val Ile Gln Lys
                                    90
               85
Thr Ile Asn Thr Leu Asn Asp Thr Gly Ser Met Glu Ala Val Cys Phe
                                105
Leu Thr Glu Leu His Val Lys Gly Arg Asn Thr Tyr Trp Lys Val Arg
                           120
                                                125
Gln Ala Val Glu Thr Ala Lys Glu Ser Leu Tyr Ser Phe Asp Gln Leu
```

135

```
Lys Thr Thr Lys Ser Glu Pro Arg Arg Pro Leu Arg Lys Met Val Phe
                    150
                                        155
Asn Val Pro Thr Arg Arg Glu Leu Thr Ser Gly Glu Arg Ala Ile Gln
                                    170
His Gly Leu Ala Ile Ala Ala Gly Ile Lys Ala Ala Lys Asp Leu Gly
                                185
Asn Met Pro Pro Asn Ile Cys Asn Ala Ala Tyr Leu Ala Ser Gln Ala
                            200
                                                 205
Arg Gln Leu Ala Asp Ala Tyr Ser Lys Asn Val Ile Thr Arg Val Ile
                        215
                                            220
Gly Glu Gln Gln Met Lys Glu Leu Gly Met His Ser Tyr Leu Ala Val
                    230
                                        235
Gly Asn Gly Ser Gln Asn Glu Ser Leu Met Ser Val Ile Glu Tyr Lys
                                    250
                245
Gly Asn Pro Ser Glu Asp Ala Arg Pro Ile Val Leu Val Gly Lys Gly
            260
                                265
                                                     270
Leu Thr Phe Asp Ser Gly Gly Ile Ser Ile Lys Pro Ser Glu Gly Met
        275
                            280
Asp Glu Met Lys Tyr Asp Met Cys Gly Ala Ala Ala Val Tyr Gly Val
                        295
                                             300
Met Arg Met Val Ala Glu Leu Gln Leu Pro Ile Asn Val Ile Gly Val
                    310
                                        315
Leu Ala Gly Cys Glu Asn Met Pro Gly Gly Arg Ala Tyr Arg Pro Gly
                325
                                    330
Asp Val Leu Thr Thr Met Ser Gly Gln Thr Val Glu Val Leu Asn Thr
                                345
Asp Ala Glu Gly Arg Leu Val Leu Cys Asp Val Leu Thr Tyr Val Glu
                            360
Arg Phe Glu Pro Glu Ala Val Ile Asp Val Ala Thr Leu Thr Gly Ala
                        375
Cys Val Ile Ala Leu Gly His His Ile Thr Gly Leu Met Ser Asn His
                    390
                                        395
Asn Pro Val Pro His Gly Pro Ile Gly Ala Phe Val Thr Thr Ala Val
                405
                                    410
Xaa Gly Pro Gln Tyr Trp Val
            420
<210> 5763
<211> 701
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(86)
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<400> 5763

 Pro
 Pro
 Gly
 Ala
 Ala
 Phe
 Ala
 A

Ser Ile Ser Glu Val Trp Asn Phe Gly Asp Thr Ala Ala Asp Thr Ala 120 Ile Tyr Asp Arg Ile Glu Val Val Arg Gly Ala Thr Gly Leu Met Ser 135 140 Gly Thr Gly Asn Pro Ala Ala Tyr Val Asn Met Val Arg Lys His Ala 150 155 Asp Ser Pro Glu Phe Lys Gly Asn Val Ser Ala Ser Tyr Gly Ser Trp 165 170 Asp Lys Gln Arg Tyr Val Leu Asp Leu Gln Ala Pro Leu Val Glu Ser 185 Gly Lys Val Arg Gly Arg Leu Ile Thr Gly Tyr Gln Asp Asn Asp Ser 200 Phe Val Asp Asn Tyr His Tyr Arg Lys Lys Phe Leu Tyr Gly Val Met 215 220 Asp Ala Asp Val Thr Asp Ser Thr Thr Leu Ser Val Gly Tyr Glu Tyr 230 235 Gln Glu Ser His Thr Ala Asp Pro Thr Trp Gly Gly Leu Pro Thr Trp 245 250 Tyr Ser Asp Gly Ser Lys Asn His Tyr Asn Arg Ser Gln Thr Val Ala 265 260 Pro Asp Trp Ala Tyr Ser Asp Lys Asp Ser Thr Arg Ile Phe Ala Asn 280 285 Leu Thr Gln Arg Phe Asp Asn Gly Trp Glu Ala His Ile Asn Gly Met 295 300 His Ala Glu Thr Asn Phe Asp Ser Lys Leu Met Tyr Met Ser Gly Tyr 310 315 Pro Asp Lys Glu Thr Gly Ala Gly Leu Val Gly Tyr Gly Gly Trp Asn 325 330 Arg Gly Glu Arg Lys Gln Asp Ala Val Asp Ala Phe Leu Arg Gly Gly 340 345 Phe Asp Leu Phe Gly Arg Gln His Glu Met Met Phe Gly Gly Ser Phe 360 Ser Arg Gln Arg Asn His Tyr Asp Asn Ser Met Pro Asp Ala Val Tyr 375 380 Gly Met Val Asp Val Gly Asn Phe Lys Asn Trp Asn Gly Asn Ile Ala 390 395 Asp Pro Gln Trp Thr Pro Trp Lys Leu Tyr Ser Lys Asp Asp Ile Arg 405 410 Gln Ser Ser Ala Tyr Ser Ser Ala Arg Phe Ser Leu Ala Asp Pro Leu 425 His Leu Ile Leu Gly Ala Arg Tyr Thr Gln Tyr Asn Ile Arg Tyr Asn 440 Pro Ala Gly Ser Pro Asn Thr Arg Leu Glu Ser Thr Lys Asp Asp Val 455 460 Thr Pro Tyr Ala Gly Leu Val Tyr Asp Ile Asn Glu Asp Trp Ser Thr 470 475 Tyr Val Ser Tyr Thr Ser Ile Phe Gln Pro Gln Asp Asn Arg Asp Ala 485 490 495 Ser Gly Arg Tyr Leu Asp Pro Thr Thr Gly Lys Ser Tyr Gln Ala Gly 505 510 Val Lys Ala Asp Trp Phe Asn Thr Arg Leu Asn Asn Ser Leu Ala Ile 520 525 Phe Arg Ile Glu His Asp Asn Val Ala Ser Asn Thr Tyr Thr Tyr Leu 535 540 Pro Ser Gly Glu Ser Ile Tyr Glu Ser Leu Asp Gly Val Val Ser Lys 550 555 Gly Val Glu Phe Glu Leu Asn Gly Ala Leu Thr Asp Asn Trp Gln Leu 570 Thr Phe Gly Ala Thr Arg Tyr Ile Ala Glu Asp Lys Asn Gly Asn Ala 585 Val Ser Ser Asp Gln Pro Arg Thr Thr Met Lys Leu Phe Thr Arg Tyr

```
600
                                                 605
Gln Leu Pro Met Leu Pro Glu Leu Thr Val Gly Gly Val Asn Trp
                        615
                                            620
Gln Asn Lys Val Trp Thr Asp Val Glu Gly Gly Pro Ala Gly Arg Ser
                    630
                                        635
Arg Ala Glu Gln Gly Ser Tyr Gly Leu Val Asn Leu Phe Ser Arg Tyr
                                    650
                645
Gln Val Thr Lys Asp Phe Ala Val Gln Ala Asn Val Asn Asn Leu Phe
                                665
Asp Lys Glu Tyr Tyr Asp Tyr Val Gly Ser Tyr Ala Val Tyr Gly Ala
                            680
Pro Leu Asn Val Ser Val Ser Ala Ser Tyr Asp Phe
                        695
<210> 5764
<211> 164
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(115)
<400> 5764
Trp Thr Leu Ser Met Ser Asn Thr Leu Gln Pro Arg Ala Arg Ala
                                    10
Ser Tyr Ser Met Asp Phe Lys Leu Ala Leu Val Glu Lys Ser Tyr Gln
            20
                                25
Pro Gly Ala Cys Val Ala Arg Leu Ala Arg Asp Asn Gly Ile Asn Asp
                            40
Asn Leu Leu Phe Thr Trp Arg Gln Arg Tyr Arg His Leu Leu Pro Asp
                        55
                                            60
Glu Ile Gln Arg Ser Ile Arg Glu Gln Asp Ser Val Ile Pro Val Val
                    70
                                        75
Leu Pro Asp Met Ala Leu Ser His His Ala Glu Pro His Tyr Glu Thr
                85
                                    90
Ala Ala Pro Ala Cys Arg Glu Ala Met Thr Cys Asp Val Thr Val Gly
            100
                                105
                                                     110
Gly Gly Xaa Leu Arg Leu Ser Gly Gly Phe Ile Thr Leu His Phe Leu
                            120
Lys Thr Leu Ile Arg Ala Pro Asp Arg Gly Gly Ser Arg Met Ile Pro
                        135
                                            140
Leu Thr Val Arg Ala Leu Arg Ile Leu Ala Gly Leu Pro Gly Phe Pro
                    150
                                        155
Lys Asn Ala
<210> 5765
<211> 242
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(183)
<220>
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<400> 5765

<221>UNSURE <222>(217)

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Ile Ser Pro Pro Val Asn Thr Leu Ala Leu Gly Tyr Ala Ala Phe Arg
                                    10
Phe Gly Arg Arg Glu Ala Asp Ser Lys Arg Thr Phe Gly Tyr Leu Arg
            20
                                25
Phe Glu Val Ile Ala Gly Phe Phe Asn Ala Leu Thr Leu Phe Ala Ile
                            40
Val Ala Trp Ile Ala Tyr Glu Ala Trp Glu Arg Leu Gln Ala Pro Pro
                        55
Ala Ile Leu Ala Gly Pro Met Leu Ile Val Ala Ile Val Gly Leu Leu
                    70
                                        75
Val Asn Val Leu Val Leu Trp Ile Met Thr Arg Gly Glu Thr Asp His
                                    90
Val Asn Val Lys Gly Ala Ile Leu His Val Met Gly Asp Leu Leu Gly
            100
                                105
Ser Val Gly Ala Ile Val Ala Ala Ile Val Ile Tyr Tyr Thr Gly Trp
                            120
                                                125
Thr Pro Ile Asp Pro Ile Leu Ser Val Leu Val Ala Ala Leu Val Leu
                        135
                                            140
Arg Ser Ala Trp Lys Leu Leu Ala Lys Ser Leu His Ile Leu Leu Glu
                    150
                                        155
Gly Ala Pro Glu Asn Ala Ser Pro Asp Lys Val Lys Gln Arg Leu Ile
                165
                                    170
Asn Ser Val Gln Gly Leu Xaa Ala Val Ser His Ile His Val Trp Gln
                                                    190
            180
                                185
Ile Thr Ser Gly Arg Ile Met Ala Thr Leu Glu Val Arg Ala Lys Glu
                            200
                                                 205
        195
Asp Val Asp Val Lys Asp Val Val Xaa Leu Val Lys Gln Glu Leu Tyr
                        215
                                            220
Glu His Phe Lys Asn Arg Thr Arg Asn Cys Gly His Arg Leu Glu Leu
                                        235
                    230
Arg
```

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<210> 5766
<211> 130
<212> PRT
<213> Enterobacter cloacae
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<400> 5766 Cys Thr Thr Asn Ser Gly Gly Arg Thr Ile Met Ser Asn Thr Ser Asp 10 Cys Gly Asn Val Arg Asn Cys Ser Ala Thr Asp Tyr Gly Thr Glu Pro Asp Leu Ser Met Leu Ser Gln Asn Glu Ile Gly Leu Leu Ser Glu Ile Phe His Leu Leu Gly Asp Gln Ser Arg Leu Arg Ile Leu Leu Tyr Cys Met Arg Gly Ser Val Ser Val Gly Asp Ile Ala Glu Ser Leu Gln Leu 75 Ser Gln Ser Leu Val Ser His His Leu Arg Leu Leu Arg Gly Ala Arg 90 Leu Val Arg Gly Glu Arg Lys Gly Lys Tyr Ile Phe Tyr Ser Ile Met 105 110 Asp Gln His Val Ser His Val Leu Gln Asp Met Ala Phe His Ile Ala 120 Glu

<210> 5767 <211> 95 <212> PRT

## <213> Enterobacter cloacae

<210> 5768 <211> 145

<400> 5768

<212> PRT <213> Enterobacter cloacae

 Pro
 Ala
 Thr
 Ile
 Val
 Ile
 Val
 Ser
 Leu
 Pro
 Asp
 Thr
 Tyr
 Ser
 Ser
 Val

 Arg
 Glu
 Ala
 Ile
 Phe
 Val
 Pro
 Phe
 Gln
 Arg
 Thr
 Gly
 Val
 Asn
 Met
 Gln

 Lys
 Ile
 Val
 Ile
 Val
 Ala
 Asn
 Gly
 Ala
 Ala
 Tyr
 Gly
 Ser
 Glu
 Ser
 Ile

 Arg
 Asn
 Ile
 Val
 Ala
 Asn
 Gly
 Ala
 Ala
 Tyr
 Gly
 Ser
 Glu
 Ser
 Ile

 Arg
 Asn
 Asn
 Ala
 Ile
 Ala
 Ala
 Arg
 Ala
 Ile
 Ala
 Ala
 Ala
 Ala
 Ala
 Ile
 Ala
 I

115 120 125 Lys Lys Glu Arg Arg Arg Ser Arg Gln Lys Gly Arg Asn Pro Ala Gly

135

145

130

<210> 5769 <211> 170 <212> PRT <213> Enterobacter cloacae

Glu Leu Gly Leu Ser Ala Ser Gln Glu Ala Asp Ala Glu Val Lys Arg
100 105 110

Ala Met Leu Ala Ala Ser Gln Ala His Trp Val Val Ala Asp His Leu
115 120 125

Lys Leu Asn Gln Cys Glu Pro Tyr Leu Val Ser Gly Leu Ser Glu Ile
130 135 140

His Gln Leu Phe Leu Asp Arg Pro Trp Ala Glu Leu Gly Asp His Ser
145 150 150 155 160

Ala Val Gln Val Thr Val Cys Ala His
165 170

<210> 5770 <211> 381

<211> 301 <212> PRT

<213> Enterobacter cloacae

<400> 5770 Ile Val Pro Gly Gln Ser Ser Gly Thr Ile Ala Pro Cys Arg Leu Pro 10 Phe Ala His Ile Asn Val Glu Lys Val Met Asn Lys Val Lys Thr Met Asn Ile Ala Leu Ile Gly Tyr Gly Phe Val Gly Lys Thr Phe His Ala Pro Leu Ile Gln Ser Val Asp Gly Leu Lys Leu Ala Val Ile Ser Ser Arg Asp Glu Glu Lys Val Lys Arg Asp Leu Pro Asp Val Leu Val Val 75 Ala Thr Pro Glu Glu Ala Ile Gln His Pro Asp Ile Asp Leu Val Val Ile Ala Ser Pro Asn Ala Thr His Ala Pro Leu Ala Thr Leu Ala Leu 100 105 Asn Ala Gly Lys His Val Val Val Asp Lys Pro Phe Thr Leu Asp Met 120 125 115 Gln Glu Ala Arg Asp Leu Ile Ala Leu Ala Glu Glu Lys Gln Leu Leu 135 140 Leu Ser Val Phe His Asn Arg Arg Trp Asp Ser Asp Phe Leu Gly Ile 150 155 Lys Gln Val Ile Ala Gln Gly Ser Ile Gly Lys Val Lys His Phe Glu 170 165 Ser His Ile Asp Arg Phe Arg Pro Glu Val Arg Val Arg Trp Arg Glu 185 190 180 Gln Asn Val Pro Gly Ser Gly Leu Trp Phe Asp Leu Gly Pro His Met 200 205 Ile Asp Gln Thr Leu Gln Leu Phe Gly Leu Pro Gln Ser Val Gln Gly 220 215 Asn Ile Ala Thr Leu Arg Asp Gly Ala Glu Ile Asn Asp Trp Ala His 230 235 Val Val Leu Asn Tyr Pro Glu His Lys Val Val Leu His Cys Ser Met 245 250 Leu Val Ala Gly Gly Val Ser Arg Phe Thr Ile His Gly Asn Lys Ala 265 Ser Val Val Lys Ala Arg Ile Asp Gln Gln Glu Ala Gln Leu Leu Ala 280 Gly Val Ile Pro Gly Ser Glu Ser Trp Gly Glu Asp Ser Asp Ala Met 295 300

Val Leu Leu Asn Ala Gln Arg Glu Ala Ser Ala Ile Pro Ala Pro Lys

Gly Asp Gln Arg Gln Tyr Tyr Ile Asn Val Arg Asp Ala Leu Asn Gly

Lys Ile Asp Asn Pro Val Pro Pro Val Glu Ala Leu Ala Val Met Ala

345

315

350

330

310

325

Val Leu Glu Ser Ala Val Lys Ser Ser Glu Thr Gly Thr Thr His Glu 355 360 Leu Asp Leu Thr Ala His Asp Arg Ala Gln Leu Gln 370 375 <210> 5771 <211> 254 <212> PRT <213> Enterobacter cloacae <400> 5771 Thr Val Lys Pro Lys Ser Pro Arg Leu Phe Ala Ile Ser Thr Pro Ala 10 Ala Leu Ala Lys Ser Lys Arg Lys Lys Glu Arg Ile Met Ser Thr Pro 20 25 Ala Asn Phe Asn Gly Ala Arg Pro Val Ile Asp Val Asn Asp Ala Val 45 Met Leu Leu Ile Asp His Gln Ser Gly Leu Phe Gln Thr Val Gly Asp 55 Met Pro Met Pro Glu Leu Arg Ala Arg Ala Ala Leu Ala Lys Ile 70 7.5 Ala Ser Leu Ala Lys Ile Pro Val Ile Thr Thr Ala Ser Val Pro Gln 85 90 Gly Pro Asn Gly Pro Leu Ile Pro Glu Ile His Ala Asn Ala Pro His 100 105 Ala Gln Tyr Val Ala Arg Lys Gly Glu Ile Asn Ala Trp Asp Asn Pro 115 120 125 Glu Phe Val Ala Ala Val Lys Ala Thr Gly Arg Lys Thr Leu Ile Ile 135 140 Ala Gly Thr Ile Thr Ser Val Cys Met Ala Phe Pro Ser Ile Ser Ala 150 155 Val Ala Asp Gly Tyr Lys Val Phe Ala Val Ile Asp Ala Ser Gly Thr 165 170 175 Tyr Ser Lys Met Ala Gln Glu Ile Thr Leu Ala Arg Val Val Gln Ala 180 185 190 Gly Val Val Pro Met Asp Thr Ala Ala Val Ala Ser Glu Ile Gln Arg 200 Thr Trp Asn Arg Glu Asp Ala Gly Glu Trp Ala Glu Val Tyr Thr His 215 Ile Phe Pro Val Tyr Gln Leu Leu Ile Glu Ser Tyr Ser Lys Ala Gln 230 235 Asp Val Val Lys Asn Ser Glu Val Leu Asp Ser Gln Arg 245 250 <210> 5772 <211> 194 <212> PRT <213> Enterobacter cloacae <400> 5772 Arg Ala Val Asp Asp Gly Gly Pro Ser His Phe Ala Arg Gly Val Pro 10 Leu Gln Arg Phe Ser Gln Lys Ala Gly Glu Leu Lys Met Met Gln Leu 20 25 Trp Phe Asn Leu Pro Ala Lys Asp Lys Trp Gly Thr Pro Gly Tyr Gln 40 45 Ser Ile Thr Gln Ala Asp Ile Pro Val Val Thr Leu Pro Asp Asn Ser 55 60

Gly Thr Leu Arg Val Ile Ala Gly Arg Phe Gly Glu Val Thr Gly Pro

Ala His Thr Phe Ser Pro Leu Asn Val Trp Asp Leu Ala Leu His Gln

75

85 90 Gly Ser His Leu Thr Leu Asn Gln Pro Glu Gly Trp Ser Thr Ala Leu 105 110 Val Val Val Glu Gly Ser Val Thr Val Asn Gly Thr Thr Pro Ala Gly 120 125 Glu Ala Gln Leu Val Val Leu Ser Gln Ser Gly Asp Lys Leu His Leu 135 140 Glu Ala Ser Ser Asp Ala Lys Val Leu Leu Met Ala Gly Glu Pro Leu 150 155 Asn Glu Pro Ile Val Gly Tyr Gly Pro Phe Val Met Asn Ser Lys Thr 170 Glu Ile Ala Glu Ala Ile Arg Asp Phe Asn Ser Gly Arg Phe Gly Gln Ile <210> 5773 <211> 124 <212> PRT <213> Enterobacter cloacae <400> 5773 Ser Ala Arg Val Trp Arg Phe Val Val Lys Arg Leu Gly Pro Glu Gln 10 Arg Ala Glu Leu Val Leu Asn Ala Leu Val Ala Ile Arg Phe Leu Lys 20 25 Pro Gln Met Pro Lys Ser Trp His Phe Leu Ala His Gly Met Ser Trp 40 Thr Pro Ala Ile Gly Asp Ala Ala Ser Val Asn Leu Ser Asp Thr Glu 55 Glu Glu Val Asn Leu Leu Val Val Glu Pro Gly Glu Asn Ala Ala Leu 70 75 Cys Leu Leu Ala Gln Pro Gly Val Asn Ile Ala Gly Arg Val Met Gln 90 Leu Gly Asp Ala Ile Lys Val Met Asn Asp Arg Leu Lys Pro Gln Leu 100 105 Arg Val Asp Ser Phe Ser Leu Glu Gln Ala Val 115 <210> 5774 <211> 324 <212> PRT <213> Enterobacter cloacae <400> 5774 Thr Ala Arg Gln Phe Pro Gln Met Val Arg Phe Thr Pro Ser Pro Leu His Asp Gly Leu His Leu Thr Ala Pro Asp Gly Ser Ser Val Val Ile Arg Phe Ala Asp Phe Ala Pro Leu Asp Ala Pro Thr Glu Val Trp Gly Asn His Phe Thr Ala Arg Ile Ala Pro Asp Asn Ile Asn Gln Trp Leu 55 Ser Gly Phe Phe Ser Arg Asp Val Gln Leu Arg Trp Val Gly Pro Ala 75 Leu Thr Arg Arg Val Lys Arg His Asp Ala Val Pro Leu Ser Phe Ala 90 85 Asp Gly Phe Pro Phe Leu Leu Thr Ser Glu Ala Ser Leu Arg Asp Leu 105 110 Gln Lys Arg Cys Lys Ala Ser Val Gln Met Glu Gln Phe Arg Pro Asn

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Leu Val Val Thr Gly Ala Glu Ala Trp Asp Glu Asp Thr Trp Lys Val
                        135
                                            140
Ile Arg Ile Gly Ser Val Ile Phe Asp Val Lys Pro Cys Ser Arg
                    150
                                       155
Cys Ile Leu Thr Thr Ile Ser Pro Glu Lys Gly Gln Lys His Pro Ser
               165
                                    170
Gly Glu Pro Leu Lys Thr Leu Gln Ser Phe Arg Thr Ala Gln Asp Lys
                                185
Gly Asp Val Asp Phe Gly Gln Asn Leu Ile Pro Arg Ser Ser Gly Val
                            200
Ile Arg Val Gly Asp Glu Ile Glu Ile Leu Thr Arg Gly Pro Ala Arg
                        215
                                            220
Val Tyr Gly Ala Gly Gln Glu Glu Met Val Asp Val Val Thr Asn
                    230
                                        235
Val Ala Ser Ala Val Asp Ile His Trp Glu Gly Lys Val Ile Arg Gly
                245
                                    250
Asn Asn Gln Gln Val Leu Leu Glu Gln Leu Glu Gln Ala Gly Ile Arg
            260
                                265
                                                    270
Val Pro Tyr Ser Cys Arg Ala Gly Ile Cys Gly Cys Cys Arg Ile Lys
        275
                            280
                                                285
Leu Val Asp Gly Glu Val Ser Ala Leu Lys Lys Ser Ala Ile Gly Gly
                        295
                                            300
Asp Gly Thr Ile Leu Cys Cys Ser Cys Val Pro Lys Thr Ser Val Gln
                                        315
                    310
Leu Glu Ala
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<210> 5775

<211> 264

<212> PRT <213> Enterobacter cloacae

<400> 5775

Asn Arg Gly His Arg Tyr Ser Pro Val Leu Ala Ile Val Leu Leu Val 10 Arg Ser Leu Leu Tyr Glu Pro Phe Gln Ile Arg Ser Gly Ser Met Ile Pro Thr Leu Leu Ile Gly Asp Phe Ile Leu Val Glu Lys Phe Ala Tyr 40 45 Gly Ile Lys Asp Pro Ile Tyr Gln Lys Thr Leu Ile Glu Thr Gly His 55 Pro Lys Arg Gly Asp Ile Val Val Phe Lys Tyr Pro Glu Asp Pro Arg 70 7.5 Leu Asp Tyr Ile Lys Arg Ala Val Gly Leu Pro Gly Asp Lys Val Thr 85 90 Tyr Asp Pro Val Ala Lys Glu Val Thr Ile Gln Pro Gly Cys Ser Ser 105 Gly Thr Ala Cys Glu Asn Ala Leu Pro Val Thr Tyr Ser Asn Val Glu 120 Pro Ser Asp Phe Val Gln Thr Phe Ala Arg Arg Asn Gly Gly Glu Ala 135 140 Thr Ser Gly Phe Phe Gln Val Pro Lys Gly Glu Thr Lys Glu Asn Gly 150 155 Ile Arg Leu Val Glu Arg Lys Glu Thr Leu Gly Asp Val Thr His Arg 165 170 Ile Leu Thr Val Pro Ile Ala Gln Asp Gln Leu Ala Met Tyr Tyr Gln 190 180 185 Gln Pro Gly Gln Gln Leu Ala Thr Trp Ile Val Pro Pro Gly His Tyr 200 205 Phe Met Met Gly Asp Asn Arg Asp Asn Ser Ala Asp Ser Arg Tyr Trp 215 220

Gly Phe Val Pro Glu Ala Asn Leu Val Gly Lys Ala Thr Ala Ile Trp 225 230 235 240

Met Ser Phe Glu Lys Gln Glu Gly Glu Trp Pro Thr Gly Val Arg Leu 245 250 255

Asn Arg Ile Gly Gly Ile His 260

<210> 5776 <211> 177 <212> PRT <213> Enterobacter cloacae

35 40 45

Ile Thr Ser Arg Lys Ala Gln Thr Thr Arg His Arg Ile Val Gly Ile
50 55 60

His Thr Glu Gly Ala Tyr Gln Ala Ile Tyr Val Asp Thr Pro Gly Leu 65 70 75 80
His Met Glu Glu Lys Arg Ala Ile Asn Arg Leu Met Asn Lys Ala Ala

85 90 95
Ser Ser Ser Ile Gly Asp Leu Glu Leu Val Ile Phe Val Val Glu Gly
100 105 110

Thr Arg Trp Thr Pro Asp Asp Glu Met Val Leu Asn Lys Leu Arg Asp 115 120 125

Gly Lys Thr Pro Val Ile Leu Ala Val Asn Lys Val Asp Asn Val Gln
130
135
140

Glu Lys Ala Asp Leu Leu Pro His Leu Gln Trp Leu Gly Ser His Met 145 150 155 160 Asn Phe Leu Asp Ile Val Ser Leu Ser Ala Asp Thr Gly Leu Asn Val

165 170 175

Asp

<210> 5777 <211> 267 <212> PRT

<213> Enterobacter cloacae

<400> 5777

Asn Ile Pro Pro Lys Phe Lys Val Gly Pro Ala Arg Val Pro Arg His Thr Lys Pro Arg Trp Phe Ser Gln Val Gly Phe Val Cys Cys Ile Phe 25 Asp Ala Phe Ile Tyr Trp Tyr Arg Met Asn Pro Ile Val Ile Asn Arg 40 45 Leu Gln Arg Lys Leu Gly Tyr Thr Phe His His Gln Glu Leu Leu Gln 55 60 Gln Ala Leu Thr His Arg Ser Ala Ser Ser Lys His Asn Glu Arg Leu 75 70 Glu Phe Leu Gly Asp Ser Ile Leu Ser Phe Val Ile Ala Asn Ala Leu 90 85 Tyr His Arg Phe Pro Arg Val Asp Glu Gly Asp Met Ser Arg Met Arg 105 110 Ala Thr Leu Val Arg Gly Asn Thr Leu Ala Glu Ile Ala Arg Glu Phe 120 Glu Leu Gly Glu Cys Leu Arg Leu Gly Pro Gly Glu Leu Lys Ser Gly

135 140 Gly Phe Arg Arg Glu Ser Ile Leu Ala Asp Thr Val Glu Ala Leu Ile 150 155 Gly Gly Val Phe Leu Asp Ser Asp Ile Gln Thr Val Glu Lys Leu Ile 170 Leu Asn Trp Tyr Gln Thr Arg Leu Asp Glu Ile Ser Pro Gly Asp Lys 185 Gln Lys Asp Pro Lys Thr Arg Leu Gln Glu Tyr Leu Gln Gly Arg His 200 Leu Pro Leu Pro Ser Tyr Leu Val Val Gln Val Arg Gly Glu Ala His 215 220 Asp Gln Glu Phe Thr Ile His Cys Gln Val Ser Gly Leu Ser Glu Pro 235 230 Val Val Gly Thr Gly Ser Ser Arg Arg Lys Ala Glu Gln Ala Ala Ala 250 245 Glu Gln Ala Leu Lys Met Leu Glu Leu Glu 260

<210> 5778

<211> 436

<212> PRT

<213> Enterobacter cloacae

<400> 5778 Thr Gly Lys Tyr His Met Val Asp Gln Val Lys Val Ala Ala Ala Glu Glu Ala Thr Ser Glu Gln Ser Leu Arg Arg Asn Leu Thr Asn Arg His Ile Gln Leu Ile Ala Ile Gly Gly Ala Ile Gly Thr Gly Leu Phe Met Gly Ser Gly Lys Thr Ile Ser Leu Ala Gly Pro Ser Ile Ile Phe Val 55 Tyr Met Ile Ile Gly Phe Met Leu Phe Phe Val Met Arg Ala Met Gly 70 75 Glu Leu Leu Ser Asn Leu Glu Tyr Lys Ser Phe Ser Asp Phe Ala 8.5 90 Ser Asp Leu Gly Pro Trp Ala Gly Tyr Phe Thr Gly Trp Thr Tyr 105 100 Trp Phe Cys Trp Val Val Thr Gly Met Ala Asp Val Val Ala Ile Thr 120 125 Ala Tyr Ala Gln Phe Trp Phe Pro Gly Leu Ser Asp Trp Val Ala Ser 135 140 Leu Ala Val Ile Val Leu Leu Ser Leu Asn Leu Ala Thr Val Lys 150 155 Met Phe Gly Glu Met Glu Phe Trp Phe Ala Met Ile Lys Ile Val Ala 165 170 Ile Ile Ala Leu Ile Val Val Gly Leu Val Met Val Leu Thr His Phe 185 Gln Ser Pro Thr Gly Val Gln Ala Ser Phe Ala His Leu Trp Asn Asp 200 Gly Gly Trp Phe Pro Lys Gly Ile Ser Gly Phe Phe Ala Gly Phe Gln 215 Ile Ala Val Phe Ala Phe Val Gly Ile Glu Leu Val Gly Thr Thr Ala 230 235 Ala Glu Thr Lys Asp Pro Glu Lys Ser Leu Pro Arg Ala Ile Asn Ser 245 250 Ile Pro Leu Arg Ile Ile Met Phe Tyr Val Phe Ala Leu Ile Val Ile 260 265 Met Ser Val Thr Pro Trp Ser Ser Val Val Pro Thr Lys Ser Pro Phe 280 Val Glu Leu Phe Val Leu Val Gly Leu Pro Ala Ala Ser Leu Ile

<400> 5780

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295
                                           300
Asn Phe Val Val Leu Thr Ser Ala Ala Ser Ser Ala Asn Ser Gly Val
                            315
             310
Phe Ser Thr Ser Arg Met Leu Phe Gly Leu Ala Gln Glu Gly Val Ala
                                  330
               325
Pro Ser Ala Phe Ala Lys Leu Ser Lys Arg Ala Val Pro Ala Lys Gly
                               345
Leu Thr Phe Ser Cys Ile Cys Leu Leu Gly Gly Val Val Met Leu Tyr
                           360
                                               365
Val Asn Pro Ser Val Ile Gly Ala Phe Thr Met Ile Thr Thr Val Ser
                       375
Ala Ile Leu Phe Met Phe Val Trp Thr Ile Ile Leu Cys Ser Tyr Leu
                   390
                                        395
Val Tyr Arg Lys Gln Arg Pro His Leu His Glu Lys Ser Ile Tyr Lys
               405
                                   410
Met Pro Leu Gly Lys Leu Met Cys Trp Val Cys Met Ala Phe Phe Val
            420
                                425
Phe Val Leu Val
        435
<210> 5779
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 5779
Glu Arg Glu Asp Ala Val Leu Pro Pro Ala Gly Glu Glu Leu Glu Ala
                                    10
Gln Ala Ser Tyr Gly Ile Gly Leu Gln Val Gly Gln Gln Leu Ser Glu
            20
                                25
Ser Gly Leu Glu Gly Leu Leu Pro Glu Ala Leu Val Ala Gly Ile Ala
                           40
Asp Ala Leu Glu Gly Lys Gln Pro Ala Val Pro Val Asp Val Val His
                       55
Arg Ala Leu Arg Glu Ile His Glu Arg Ala Asp Ala Val Arg Arg Ala
                   70
                                        75
Arg Phe Glu Glu Met Ala Ala Glu Gly Val Lys Tyr Leu Glu Glu Asn
               85
                                    90
Arg Glu Arg Glu Gly Val Asn Ser Thr Glu Ser Gly Leu Gln Phe Arg
            100
                                105
Val Ile Asn Gln Gly Asp Gly Ala Ile Pro Ala Arg Thr Asp His Val
                            120
Arg Val His Tyr Thr Gly Lys Leu Ile Asp Gly Thr Val Phe Asp Ser
                       135
                                            140
Ser Val Ala Arg Gly Glu Pro Ala Glu Phe Pro Val Asn Gly Val Ile
                   150
                                        155
Ala Gly Trp Ile Glu Ala Leu Thr Leu Met Pro Val Gly Ser Lys Trp
               165
                                    170
                                                       175
Glu Leu Thr Ile Pro His Asn Leu Ala Tyr Gly Glu Arg Gly Ala Gly
                               185
                                                   190
Ala Ser Ile Pro Pro Phe Ser Thr Leu Val Phe Glu Val Glu Leu Leu
       195
                           200
                                               205
Glu Ile Leu
   210
<210> 5780
<211> 400
<212> PRT
<213> Enterobacter cloacae
```

```
Asp Glu Thr Arg Ile Tyr Tyr Arg Arg Ser Leu Cys Asn Met Ala Asp
                                    10
Asp Lys Leu Ser Gly Pro Asp Glu Lys Leu Phe Tyr Gln Ser Arg Arg
                                25
Leu Tyr Arg Lys Cys Cys Asn Ile Tyr Tyr Ile Gln Val Ser Met Met
                            40
Val Lys Lys Phe Lys Lys Leu Leu Glu Phe Ile Val Ala Val Met
                        55
Leu Ser Leu Ser Ile Pro Gly Met Ala Met Ala Ala Asp Ala Gly Val
                    70
Pro Gly Ala Met Cys Gln Ser Ala Gly Val Trp Gln Gly Leu Ile Lys
                85
                                    90
Asn Ile Cys Trp Ser Cys Ile Phe Pro Met Arg Ile Met Gly Ile Gly
                                105
                                                    110
Ala Ala Pro Glu Gly Ala Ala Pro Ser Arg Pro Gly Cys Tyr Cys Thr
                            120
                                                125
Asp Gln Asn Gly Val Pro Glu Ile Gly Trp Gln Leu Ser Phe Phe Gln
                        135
Pro Val Lys Ile Val Glu Val Val Lys Ser Pro Trp Cys Ser Pro Phe
                    150
                                        155
Leu Glu Gly Thr Met Leu Gln Lys Ser Gln Phe Asp Ile Gly Lys Ser
                                    170
                165
                                                         175
Asn Thr Asn Gln Pro Met Thr Ala Thr Glu Ala Gly Phe Tyr Asp Val
            180
                                185
                                                     190
His Leu Trp Glu Phe Pro Ile Met Thr Met Leu Lys Leu Leu Ile Ile
        195
                            200
Gly Glu Cys Thr Ala Glu Pro Tyr Ile Asp Ala Ser Leu Thr Tyr Ile
                        215
                                            220
Ser Glu Val Asp Pro Met Trp Glu Ser Asp Leu Leu Thr Leu Val Leu
                    230
                                        235
Asn Pro Glu Ala Val Val Phe Ala Asn Pro Ile Ala Ser Met Val Cys
                245
                                    250
Ala Ala Asp Cys Val Ala Val Thr Ala Gly Lys Asp Asn Leu Ala Ala
                                265
Tyr Phe Cys Ala Gly Cys Asp Gly Asn Leu Tyr Pro Leu Thr Gly His
        275
                            280
                                                285
Met Tyr Ala Asn Asp Asp Ala Val Arg Thr Ser Ser Leu Ile Thr His'
                        295
                                            300
Arg Leu Leu Thr Lys Leu His Arg Gln Gly Met Leu Met Arg Thr Met
                    310
                                        315
Gly Ala Asp Ala Met Cys Glu Lys Thr Trp Glu Tyr Phe Thr Pro Arg
                                    330
Ser Gln Tyr Arg Leu Ser Met Leu Phe Pro Thr Pro Glu Ala Lys Gly
                                345
Pro Asp Cys Cys His Arg Leu Gly Asp Ser Val His Asp Trp Ser Thr
                            360
Leu Lys Gly Gly Arg Lys Lys Ile Gly Asn Asp Asn Tyr Val Tyr Met
                        375
                                            380
Leu Trp Arg Tyr Asn Asp Cys Cys Val Arg Tyr Ile Pro Gly Ala
                                        395
<210> 5781
<211> 293
<212> PRT
```

<213> Enterobacter cloacae

<400> 5781

Gln Ile Trp Ser Ile Tyr Met Ala Trp Asn Gln Pro Gly Asn Asn Gly
1 5 10 15
Gln Asp Arg Asp Pro Trp Gly Ser Ser Asn Asn Gln Gly Gly Asn Ser
20 25 30

```
Gly Gly Asn Gly Asn Lys Gly Gly Arg Glu Gln Gly Pro Pro Asp Leu
                            40
Asp Asp Ile Phe Arg Lys Leu Ser Lys Leu Gly Gly Leu Gly Gly
                        55
Gly Lys Gly Ser Gly Ser Gly Gly Asn Ser Thr Gln Ser Pro Arg Pro
                    70
                                        75
Pro Met Gly Gly Arg Val Val Gly Ile Val Ala Ala Val Val Ile
                85
                                    90
Ile Trp Ala Ala Ser Gly Phe Tyr Thr Ile Lys Glu Ala Glu Arg Gly
            100
                                105
Val Val Thr Arg Phe Gly Lys Phe Ser His Leu Val Glu Pro Gly Leu
                            120
Asn Trp Lys Pro Thr Phe Ile Asp Asp Val Thr Ala Val Asn Val Glu
                        135
Ser Val Arg Glu Leu Ala Ala Ser Gly Val Met Leu Thr Ser Asp Glu
                    150
                                        155
Asn Val Val Arg Val Glu Met Asn Val Gln Tyr Arg Val Thr Asp Pro
                                    170
Glu Arg Tyr Leu Phe Ser Val Thr Ser Ala Asp Asp Ser Leu Arg Gln
                                185
Ala Thr Asp Ser Ala Leu Arg Gly Val Ile Gly Lys Tyr Thr Met Asp
                            200
                                                205
Arg Ile Leu Thr Glu Gly Arg Thr Val Ile Arg Ser Asp Thr Gln Arg
                        215
                                            220
Glu Leu Glu Glu Thr Ile Arg Pro Tyr Asn Met Gly Ile Thr Leu Leu
                    230
                                        235
Asp Val Asn Phe Gln Ala Ala Arg Pro Pro Glu Glu Val Lys Ala Ala
                                    250
                245
Phe Asp Asp Ala Ile Ala Ala Arg Glu Asn Glu Gln Gln Tyr Ile Arg
            260
                                265
                                                    270
Glu Ala Glu Ala Tyr Thr Lys Asp Val Arg Leu His Leu Gly Arg Ala
       275
                            280
Asp Pro Arg Arg Ala
   290
<210> 5782
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 5782
Thr Lys Met Asp Met Leu Glu Asp Phe Glu Pro Arg Ile Asp Arg Asp
                                    10
Glu Glu Asn Lys Pro Ile Arg Val Trp Leu Tyr Ala Gln Ala Gly Ile
            20
                                25
Gly Val Pro Leu Leu Phe Gln Ala Leu Thr Glu Arg Leu Ser Gly Glu
                            40
Val Ala Gln His Thr Leu Arg Leu Pro Pro Gln Glu Gly Arg Leu Arg
Ser Arg Phe Tyr Gln Leu Gln Ala Ile Glu Lys Glu Trp Met Glu Asp
                                        75
Asp Gly Ser Val Gly Met Gln Val Arg Met Pro Ile Val Asp Trp Arg
                                    90
                85
Arg Leu Cys Lys Gln Glu Pro Ala Leu Ala Asp Tyr Ile Val
                                105
<210> 5783
<211> 199
<212> PRT
<213> Enterobacter cloacae
```

```
<400> 5783
Gly His His His Pro Val Leu Gly Ile Val Ile Lys Cys Pro Leu Ser
                                    10
Gly Glu Thr Gln Gln Glu Arg Ile Met Met Ser Leu Ala Gly Lys Lys
                                25
Ile Val Leu Gly Val Ser Gly Gly Ile Ala Ala Tyr Lys Thr Pro Asp
Leu Val Arg Arg Leu Arg Glu Arg Gly Ala Asp Val Arg Val Ala Ile '
Thr Glu Gly Gly Lys Ala Phe Ile Thr Pro Leu Ser Leu Gln Ala Val
                                         75
Ser Gly Tyr Pro Val Ser Asp Ser Leu Leu Asp Pro Ala Ala Glu Ala
                                    90
Ala Met Gly His Ile Glu Leu Gly Lys Trp Ala Asp Leu Val Ile Leu
                                105
Ala Pro Ala Thr Ala Asp Leu Ile Ala Arg Leu Ala Thr Gly Met Ala
                            120
Asn Asp Leu Val Thr Thr Ile Cys Leu Ala Thr Pro Ala Pro Val Ala
                        135
                                             140
Val Val Pro Ala Met Asn Gln Gln Met Tyr Arg Asn Ala Ala Thr Gln
                    150
                                         155
His Asn Leu Asp Thr Leu Ala Ser Arg Gly Leu Leu Ile Trp Gly Thr
                165
                                    170
Asp Ser Gly Ser Gln Ala Cys Gly Glu Ile Gly Gly Arg Gly Phe Pro
            180
                                185
                                                     190
Gln Pro Ile Asn Asp Cys
        195
<210> 5784
<211> 68
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(52)
<400> 5784
Phe Gly Glu Arg Thr Ala Ala Lys Pro Ala Gly Lys Leu Gly Ala
Gly Val Phe Leu Asn Pro Leu Thr Ile Val Asp Met Ala Ala Ala His
                                25
Phe Ser Pro Val Asn Asp Leu Gln His Leu Asn Ile Met Asn Thr Ala
                            40
Gly Pro Pro Xaa Lys Pro Leu Gly Phe Arg Ala Leu His Gln Gln Pro
Lys Val Arg Glu
65
<210> 5785
<211> 284
<212> PRT
<213> Enterobacter cloacae
<400> 5785
Phe Phe Pro Val Gly Phe His Gln Arg Ala Gly Ile Leu Ser Gln Ser
Leu Lys Arg Gly Asp Asp Val Leu Asn Ser Leu Cys Glu Ala Leu Arg
Lys Asn Glu Met Pro Ala Ser Asn Pro Glu Phe Ala Cys Gly Ser Ile
```

```
Met Ala Asn Arg Arg Pro Gly Met Glu Glu Thr Glu Leu Leu Leu
                        5.5
                                             60
Pro Arg Glu Lys Met Leu Arg His Gly Val Thr Leu Leu Lys Asp Asp
                    70
                                        75
Glu Leu Leu Ala Leu Phe Leu Arg Thr Gly Thr Pro Gly Lys Thr Val
                85
                                    90
Phe Thr Leu Ala Lys Glu Leu Ile Asp His Phe Gly Ser Leu Tyr Gly
                                105
Leu Leu Thr Ala Glu Leu Glu Ala Phe Thr His Val Glu Gly Ile Gly
                            120
Val Ala Lys Tyr Ala Gln Leu Arg Gly Ile Ala Glu Leu Ala Arg Arg
                        135
                                            140
Phe Tyr Asn Val Arg Met Glu Glu Glu Asp Pro Ile Leu Thr Pro Asp
                    150
                                        155
Met Thr Arg Glu Phe Leu Gln Ser Gln Leu Ser Asp Leu Glu Arg Glu
                165
                                    170
                                                         175
Ile Phe Met Val Ile Phe Leu Asp Asn Lys Asn Arg Val Leu Lys His
            180
                                185
Thr Arg Leu Phe Ser Gly Thr Leu Ser His Val Glu Val His Pro Arg
                            200
Glu Ile Val Arg Glu Ala Ile Lys Val Asn Ala Ala Gly Val Ile Leu
                        215
Ala His Asn His Pro Ser Gly Cys Ala Glu Pro Ser Arg Ala Asp Lys
                    230
                                        235
Ala Ile Thr Glu Arg Ile Ile Lys Cys Cys Gln Phe Met Asp Ile Arg
                245
                                    250
Val Leu Asp His Leu Ile Ile Gly Arg Gly Glu Tyr Ile Cys Leu His
                                265
His Arg Gly Ser Lys Glu Pro Arg Tyr Ala Cys Ile
<210> 5786
<211> 112
<212> PRT
<213> Enterobacter cloacae
<400> 5786
Met Asn Met Leu Ser Phe Glu Gly Lys Glu Ile Glu Thr Asp Asn Asp
                                    10
Gly Tyr Leu Lys Glu Ser Ser Gln Trp Ser Glu Ala Leu Ala Glu Lys
                                25
Ile Ala Asp Asn Glu Gly Ile Thr Leu Ser Pro Glu His Trp Glu Val
                            40
Val Arg Phe Val Arg Glu Phe Tyr Leu Glu Phe Asn Thr Ser Pro Ala
                        55
                                            60
Ile Arg Met Leu Val Lys Ala Met Ala Asn Lys Phe Gly Glu Glu Lys
                                        75
                    70
Gly Asn Ser Arg Tyr Leu Tyr Arg Leu Phe Pro Lys Gly Pro Ala Lys
                                    90
Gln Ala Thr Lys Ile Ala Gly Leu Pro Lys Pro Val Lys Cys Ile
<210> 5787
<211> 221
<212> PRT
<213> Enterobacter cloacae
<400> 5787
Leu Met Asp Arg Ile Ile Thr Ser Ser Arg Asp Arg Thr Ser Leu Leu
                                 . 10
```

Ser Thr His Lys Val Leu Arg Asn Thr Tyr Phe Met Leu Ser Leu Thr

```
20
                                25
Leu Ala Phe Ser Ala Ile Thr Ala Thr Ala Ser Thr Val Leu Met Leu
                            40
Pro Ser Pro Gly Leu Ile Leu Thr Leu Val Gly Met Tyr Gly Leu Met
                        55
Phe Leu Thr Tyr Lys Thr Ala Asp Lys Pro Val Gly Ile Leu Ser Ala
                                        75
                    70
Phe Ala Phe Thr Gly Phe Leu Gly Tyr Ile Leu Gly Pro Ile Leu Asn
                85
Ala Tyr Leu Ser Ala Gly Met Gly Asp Val Ile Gly Met Ala Leu Gly
                                105
Gly Thr Ala Leu Val Phe Phe Cys Cys Ser Ala Tyr Val Leu Thr Thr
                            120
Arg Lys Asp Met Ser Phe Leu Gly Gly Met Leu Met Ala Gly Ile Val
    130
                        135
                                             140
Ile Val Leu Val Gly Met Leu Ala Asn Ile Phe Leu Gln Leu Pro Ala
                    150
                                         155
Leu His Leu Ala Ile Ser Ala Val Phe Ile Leu Ile Ser Ser Gly Ala
                165
                                    170
Ile Leu Tyr Glu Thr Ser Asn Ile Ile His Gly Gly Glu Thr Asn Tyr
            180
                                185
Ile Arg Ala Thr Val Ser Leu Tyr Val Ser Leu Tyr Asn Ile Phe Val
                            200
Ser Leu Leu Ser Ile Leu Gly Phe Gly Ser Arg Asp
                        215
<210> 5788
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 5788
Cys Gln Met Phe Ala Pro Leu Pro Gly Ser His Gly Val Gly Gln Gly
Ile Gly Phe Arg Tyr Ser Thr Gln Arg Glu Ala Leu Gln Leu Gly Leu
Thr Gly Tyr Ala Arg Asn Met Asp Asp Gly Ser Val Glu Val Val Ala
Cys Gly Glu Ala Asp Arg Val Glu Lys Leu Val Ala Trp Leu Lys Ala
                        55
Gly Gly Pro Arg Ser Ala Arg Val Asp Lys Val Leu Thr Glu Pro His
Gln Pro Gly Arg Glu Tyr Ala Asp Phe Ser Ile Arg Tyr
<210> 5789
<211> 384
<212> PRT
<213> Enterobacter cloacae
<400> 5789
Lys Ile Leu Arg Tyr Ile Pro Lys Ala Ala Lys Asn Tyr Phe Arg Ile
                                    10
Val Ile Lys Thr Asp Asn Lys Ala Lys Glu Met Lys Pro Gln Thr Arg
                                25
Thr His Phe Thr Leu Ser Leu Leu Thr Ala Gly Ile Leu Cys Ala Ser
Thr Ala Thr Trp Ala Ala Asn Val Pro Ala Gly Thr Gln Leu Ala Asp
Lys Gln Glu Leu Val Arg Asn Asn Gly Ser Glu Pro Ala Ser Leu Asp
```

```
Pro His Lys Val Glu Ser Asp Val Glu Phe Asn Ile Ile Ser Asp Leu
                85
                                    90
Phe Asp Gly Leu Val Ser Val Ser Pro Ala Gly Glu Ile Gln Pro Arg
            100
                                105
Leu Ala Glu Lys Trp Glu Asn Lys Asp Asn Thr Val Trp Thr Phe His
                            120
                                                125
Leu Arg Pro Gly Ile Thr Trp Ser Asp Gly Thr Pro Ile Thr Ala Glu
                        135
                                            140
Asp Ile Val Trp Ser Trp Gln Arg Leu Val Asp Pro Lys Thr Ala Ser
                    150
                                        155
Pro Tyr Ala Ser Tyr Pro Gly Ser Met Arg Ile Val Asn Gly Thr Asp
                                    170
Ile Ala Glu Gly Lys Lys Ala Pro Glu Ser Leu Gly Val Lys Ala Ile
                                185
                                                     190
Asn Asp Thr Thr Leu Glu Val Thr Leu Thr Gln Pro Asn Ala Ala Phe
                            200
Leu Ala Met Leu Ala His Pro Ser Leu Val Pro Ile Asp Lys Val Leu
                        215
                                            220
Val Gly Arg Phe Gly Asp Lys Trp Thr Lys Pro Glu His Phe Val Ser
                    230
                                        235
Ser Gly Ala Tyr Lys Leu Ser Gln Trp Val Val Asn Glu Arg Ile Val
                245
                                    250
Ala Val Leu Asn Pro Lys Tyr Trp Asp Asn Glu His Thr Val Ile Asn
            260
                                265
                                                     270
Lys Val Thr Tyr Leu Pro Ile Ser Ser Glu Ala Ala Asp Val Asn Arg
                            280
                                                285
Tyr Lys Ala Gly Glu Ile Asp Ile Val Tyr Thr Val Pro Ile Asn Gln
    290
                        295
                                            300
Phe Ala Gln Leu Lys Lys Thr Leu Gly Ser Glu Leu Asp Val Ser Pro
                    310
                                        315
Gln Leu Ala Thr Tyr Tyr Glu Phe Asn Thr Thr Arg Pro Pro Phe
                325
                                    330
Asn Asp Ala Arg Val Arg Lys Ala Leu Asn Leu Ala Leu Asp Lys Asp
            340
                                345
Ile Ile Ala Asp Lys Val Ile Arg Gln Gly Gln Arg Pro Ala Trp Leu
                            360
Ile Asn Gln Pro Asp Ile Gly Gly Val Lys Leu Gln Asn Pro Gly
    370
                        375
```

<210> 5790

<211> 316

<212> PRT

<213> Enterobacter cloacae

<400> 5790

Lys Val Leu Pro Gly Val Ser Ala His Met Lys Lys Met Ala Asp Glu 10 Ala Gly Gly Leu Asp Arg Val Ser Gln Met Ala Val Thr Gly Ile Gly 25 Arg Val Lys Ala Ala Met Glu Asn Asp Leu Asn Lys Ala Phe Thr Ser 40 45 Ser Glu Lys Gly Phe Gly Gln Phe Asn Ala Ser Val Ala Asn Met Leu 55 Asn Asp Ala Ser Pro Ile Ala Glu Ala Leu Gly His Ile Leu Gly Lys 70 75 Val Ala Ser Met Thr Ser Gly Ala Val Asp His Val Asp Glu Trp Ser 85 90 Arg Lys Leu Ser Ala Leu Ile Leu Arg Thr Ser Ala Trp Tyr Asp Asp 105 Leu Ser Asp Gly Gln Lys Lys Leu Val Asp Ser Ala Glu Gln Phe Ala 120

```
Ile Gly Ala Ala Gly Val Leu Val Leu Val Lys Ser Ile Ala Gly Val
                        135
                                            140
Ala Asn Lys Leu Lys Trp Leu Ser Ala Leu Leu Gly Gly Gly Ala Glu
                    150
                                        155
Ala Gly Ala Ala Gly Ala Gly Gly Leu Leu Lys Gly Ala Ser Arg
                                   170
                165
Leu Ala Gly Pro Val Gly Val Ala Leu Val Ala His Asp Ala Val Asp
            180
                                185
                                                    190
Ala Ser Gly Val Glu Gln Asn Tyr Pro Asn Ala Val Gly Thr Gly Asn
        195
                            200
                                                205
Pro Ile Ala Gln Val Leu Asn Trp Leu Thr Asn Pro Ser Lys Ile Leu
                        215
                                            220
Gly Ala Thr Glu Gln Asp Ser Leu Thr Asn Ser Pro Phe Thr Arg Met
                    230
                                        235
Met Gly Ser Leu Gly Asp Trp Leu Gln Gly Asn Asn Ala Leu Ser Gly
                245
                                    250
Gln Ala Asn Thr Phe Ala Val Pro Ser Met Tyr Asn Pro Ala Gln Thr
            260
                                265
                                                    270
Thr Ile Arg Asn Asp Gln Arg Ile Asn Ile Ser Val Asn Met Asp Ser
        275
                            280
Gln Lys Ile Gly Thr Phe Gln Thr Gln Val Leu Thr Gly Gly Phe Glu
                        295
                                            300
Asp Leu Asn Ile Asn Ala Glu His Leu Gly Asp
                    310
<210> 5791
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 5791
Thr Gly Gln Asp Arg Ile Tyr Arg Leu Glu Leu Phe Cys Arg Glu Pro
                                    10
Thr Ile Phe Lys His Ala Cys Cys Ile Ile Asn Leu Ser Gly Leu Ala
            20
                                25
Cys Ala Asp Glu His Gly Cys His Arg Ile Val Ala Gln Asp Pro Gly
        35
                            40
Gln Cys His Leu Arg Gln Leu Leu Pro Pro Phe Phe Arg Gln Arg Ile
                        55
Gln Leu Thr Tyr Leu Phe Gln Leu Phe Val Gly Asp Leu Phe Arg Ile
                    70
                                        75
Lys Glu Leu Thr Ala Ala Cys Cys Ala Arg Ile Arg Arg Asp Ala Val
                                    90
Gln Ile Ala Ile Gly Gln Leu Ser Ala Arg Gln Gly Arg Glu Gly Asp
            100
                                105
Thr Ser His Pro Phe Leu Leu Gln His Val Gln Gln Pro Leu Phe Arg
                            120
Arg Thr Phe Lys His Gly Val Leu Arg Leu Val Asp Gln Thr Trp Arg
                        135
                                            140
Ala Gln Ile Leu His Tyr Phe Asn Arg Leu Pro Cys His Phe Cys Arg
                    150
                                        155
Val Val Gly Gln Thr Asp Val Gln Arg Phe Ala Leu Thr His His Met
                                    170
                165
Val Lys Arg Phe His Gly Phe Thr
            180
                                185
<210> 5792
<211> 349
<212> PRT
<213> Enterobacter cloacae
```

<400> 5792 Cys Lys Arg Ile His Gly Cys Phe Phe Pro Ala Pro Glu Val Ser Gln Met Gly Tyr Gln Pro Asp Lys Asn Arg Tyr Gln Thr Met Gln Tyr Arg 25 Arg Cys Gly Gln Ser Gly Leu Lys Leu Pro Ala Ile Ser Leu Gly Leu 40 Trp His Asn Phe Gly Asp Ala Thr Leu Leu Glu Asn Ser Arg Gln Leu 55 Leu Gln Arg Ala Phe Asn Leu Gly Ile Thr His Phe Asp Leu Ala Asn 70 75 Asn Tyr Gly Pro Pro Pro Gly Ser Ala Glu Arg Asn Phe Gly Arg Ile 90 Leu Gln Glu Asp Phe Leu Pro Trp Arg Asp Glu Leu Ile Ile Ser Thr 105 100 Lys Ala Gly Tyr Thr Met Trp Asp Gly Pro Tyr Gly Asp Trp Gly Ser 120 125 Arg Lys Tyr Leu Ile Ala Ser Leu Asp Gln Ser Leu Lys Arg Met Gly 135 140 Leu Glu Tyr Val Asp Ile Phe Tyr His His Arg Pro Asp Pro His Thr 150 155 Pro Leu Arg Glu Thr Met Lys Ala Leu Asp His Val Val Arg Gln Gly 170 Lys Ala Leu Tyr Ile Gly Leu Ser Asn Tyr Pro Ala Glu Met Ala Arg 185 Gln Ala Ile Glu Ile Met Glu Asp Leu Gly Thr Pro Cys Leu Ile His 200 195 Gln Pro Lys Tyr Ser Met Phe Glu Arg Ala Pro Glu Glu Gly Leu Leu 215 220 Asp Val Leu Gln Gln Lys Gly Val Gly Cys Ile Pro Phe Ser Pro Leu 230 235 Ala Gly Gly Gln Leu Thr Asp Arg Tyr Leu Asn Gly Ile Pro Ala Asp 250 Ser Arg Ala Ala Ser Gly Ser Lys Phe Leu Asn Pro Glu Gln Ile Thr 265 Asp Lys Leu Glu Lys Val Arg Lys Leu Asn Ala Leu Ala Glu Lys 280 Arg Arg Gln Lys Leu Ser Gln Met Ala Leu Ala Trp Ile Leu Arg His 295 300 Asp Ala Val Thr Ser Val Leu Ile Gly Ala Ser Lys Thr Gly Gln Ile 310 315 Asp Asp Ala Ala Gly Val Leu Glu Asn Cys Arg Phe Thr Ala Glu Glu 330 325 Leu Lys Thr Ile Asp Thr Ile Leu Ser Ser Ser Asp

<210> 5793

<211> 464

<212> PRT

<213> Enterobacter cloacae

<400> 5793

```
70
                                        75
Ala Ile Ile Lys Glu Lys Ile Asn Pro Ala Gly Ala Pro Asn Tyr Val
                                    90
Pro Gly Glu Tyr Lys Gln Gly Glu Asp Phe Thr Tyr Ser Val Glu Phe
            100
                                105
Glu Val Tyr Pro Glu Val Glu Leu Lys Gly Leu Glu Ser Ile Glu Val
                            120
                                                 125
Glu Lys Pro Ile Val Ser Val Thr Asp Glu Asp Val Asp Gly Met Leu
                        135
                                            140
Asp Thr Leu Arg Lys Gln Gln Ala Asn Trp Lys Glu Lys Glu Gly Ala
                    150
                                        155
Val Asp Ala Glu Asp Arg Val Thr Ile Asp Phe Thr Gly Ser Val Asp
                                    170
                165
Gly Glu Glu Phe Glu Gly Gly Lys Ala Ser Asp Phe Val Leu Ala Met
                                185
Gly Gln Gly Arg Met Ile Pro Gly Phe Glu Asp Gly Ile Lys Gly His
                            200
Lys Ala Gly Glu Glu Phe Thr Ile Asp Val Thr Phe Pro Glu Glu Tyr
                        215
His Ala Glu Asn Leu Lys Gly Lys Ala Ala Lys Phe Val Ile Asn Leu
                    230
                                        235
Lys Lys Val Glu Glu Arg Glu Leu Pro Glu Leu Thr Glu Glu Phe Ile
                245
                                     250
Lys Arg Phe Gly Val Glu Asp Gly Ser Val Ala Gly Leu Arg Thr Glu
                                265
Val Arg Lys Asn Met Glu Arg Glu Leu Asn Gly Ala Val Arg Asn Arg
        275
                            280
                                                 285
Val Lys Ser Gln Ala Ile Glu Gly Leu Val Lys Ala Asn Asp Ile Asp
    290
                        295
Val Pro Ala Ala Leu Ile Asp Ser Glu Ile Asp Val Leu Arg Arg Gln
                    310
                                        315
Ala Ala Gln Arg Phe Gly Gly Asn Gln Gln Ala Met Glu Leu Pro
                                    330
                325
Arg Glu Leu Phe Glu Glu Gln Ala Lys Arg Arg Val Val Gly Leu
            340
                                345
Leu Leu Gly Glu Val Ile Arg Thr His Glu Leu Lys Ala Asp Glu Glu
                            360
Arg Val Lys Gly Leu Ile Glu Glu Met Ala Ser Ala Tyr Glu Asp Pro
                        375
                                            380
Ser Glu Val Ile Glu Phe Tyr Gly Lys Asn Lys Glu Leu Met Asp Asn
                    390
                                        395
Met Arg Asn Val Ala Leu Glu Glu Gln Ala Val Glu Ala Val Leu Ala
                405
                                    410
Lys Ala Lys Val Thr Glu Lys Glu Thr Ser Phe Thr Glu Leu Met Asn
            420
                                425
His Gln Gly Val Ile Ser Pro Gln Arg Phe Lys Val Leu Asn Lys Lys
                            440
Pro Val Gly Pro Pro Gly Asp Gly Val Phe Phe Asn His Lys Leu
<210> 5794
<211> 364
<212> PRT
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<213> Enterobacter cloacae

## <400> 5794

Gly Leu His His Ala Gly Asp Pro Gly Tyr Arg Arg Ala Tyr Cys Leu 1 5 10 15 15 11e Ala Asp Leu Cys His Cys Tyr Arg Asn Ala Gly Glu Arg His Arg 20 25 30 Arg Ser Gly Val Cys Arg Ala Gly His Ser Pro Cys Asp Ala His Ala

```
40
Met Arg Ala Gly Pro Ser Ser Leu Asp Pro Ala Asp Val Ser Tyr Arg
                        55
                                            60
Arg Pro Leu Tyr Asp Pro Arg Arg Tyr Arg Leu Thr His Ala Asp Cys
                    70
                                        75
Ala Pro Gly Ser Ala His Arg Gly Gly Asp Cys Ala Gly Gly Arg Pro
               85
                                    90
Arg Leu Cys Gly Val Ala Leu Ser Lys Pro Lys Gly Ala Ser Met Asn
                                105
Ile Thr Val Ala Gly Leu Thr Val Thr Arg Gln Ala Gln Thr Val Leu
                            120
Lys Asn Ile Asp Leu Asp Leu Pro Ser Gly Gln Ile Ile Gly Leu Leu
                        135
                                            140
Gly Pro Asn Gly Ser Gly Lys Ser Thr Leu Leu Arg Cys Leu Ala Gly
                    150
                                        155
Leu Phe Pro Arg Leu Ser Glu Arg Val Ala Leu Asn Gly Thr Thr Phe
                165
                                    170
Gly Met Met Pro Leu Lys Lys Arg Ala Gln His Met Ala Phe Val Pro
                                185
Gln His Ala Glu Val Asp Gly Glu Leu Thr Val Glu Asp Ile Val Arg
                            200
                                                205
Leu Gly Arg Thr Pro Tyr Arg Lys Thr Phe Gln Arg Thr Ser Arg Asp
                        215
                                            220
Asp Glu Ala Ala Val Glu Gln Ala Ile Gly Leu Met Gln Leu Cys Arg
                    230
                                        235
Leu Arg Gln Arg Arg Trp His Ser Leu Ser Gly Gly Glu Arg Gln Arg
                245
                                    250
Ser Gln Ile Ala Arg Ala Leu Ala Gln Gln Pro Gln Val Leu Leu
            260
                                265
Asp Glu Pro Thr Asn His Leu Asp Ile Gln His Gln Leu Glu Leu Met
                            280
Arg Leu Val Ser Gln Leu Pro Leu Thr Val Val Val Ala Leu His Asp
                        295
                                            300
Leu Asn Leu Ala Ala Asn Tyr Cys Gln Arg Leu Ile Leu Leu Lys Ala
                    310
                                        315
Gly Gln Ile Ala Ala Thr Gly Ala Pro Glu Ala Val Leu Thr Pro Ala
                                    330
Asn Ile Glu Asp Thr Trp Cys Val Lys Ala Gln Val Cys Lys Ala Asp
                                345
Ala Gly Ile Thr Ile Ser Tyr Asn Met Val Ala
```

<210> 5795

<211> 186

<212> PRT

<213> Enterobacter cloacae

<400> 5795

Leu Ala Gly Ile Ala Gly Ala Gln Leu Phe Asn Ala Met Thr Ala Tyr 10 Val Val Gly Thr Ser Ala Asn Ala Glu Gln Ser Arg Ser Val Met Phe 25 Trp Leu Leu Gly Ser Leu Ser Gly Val Arg Trp Pro Asp Ala Leu Leu 40 45 Ala Leu Ala Val Thr Leu Ala Gly Leu Leu Val Val Leu Leu Phe Ser 55 60 Arg Ala Leu Asp Thr Phe Thr Phe Gly Asp Glu Val Ser Thr Thr Leu 70 75 Gly Ile Pro Val Thr Ala Val Arg Ile Val Leu Leu Thr Cys Ala 90 Ile Val Thr Ala Thr Leu Val Ser Ala Thr Gly Ala Val Gly Phe Val

```
100
                                105
                                                    110
Gly Leu Val Ile Pro His Val Thr Arg Met Leu Cys Gly Pro Gly His
                    120
                                               125
Arg Arg Ser Ile Pro Leu Thr Phe Leu Ile Gly Ala His Phe Met Ile
                      135
                                            140
Leu Ala Asp Ile Val Ser Arg Thr Leu Ile Val His Gln Val Leu Pro
                   150
                                       155
Ile Gly Val Val Thr Ala Leu Val Gly Ala Pro Val Phe Val Ala Leu
                                    170
Leu Tyr Gln Asn Arg Lys Glu His Pro
<2.10> 5796
<211> 134
<212> PRT
<213> Enterobacter cloacae
<400> 5796
Lys Asn Leu Gly Val Glu Ala Lys Leu Gln Asn Gln Glu Trp Lys Thr
                                    10
Met Leu Asp Thr Met His Thr His Asn Phe Asp Ala Val Arg Tyr Ala
            20
                                25
Trp Ile Ala Asp Tyr Asp Asp Ala Ala Thr Phe Leu Asn Asn Phe Arg
                            40
Thr Gly Asp Ser Gln Asn Thr Thr Gln Tyr Ser Asn Pro Asp Tyr Asp
                        55
Arg Ala Leu Val Asn Ala Ala Lys Ser Lys Thr Ala Glu Glu Arg Gly
                    70
                                        75
                                                            80
Lys Phe Tyr Gln Gln Ala Glu Asp Leu Leu Gly Arg Asp Val Pro Ala
                85
                                    90
Ile Pro Val Tyr His Tyr Val Arg Thr His Leu Val Lys Pro Trp Val
            100
                                105
Gly Gly Phe Thr Pro Asp Lys Leu Gly Tyr Tyr Tyr Thr Lys Asp Met
       115
                            120
                                                125
Tyr Ile Lys Lys His
   130
<210> 5797
<211> 192
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(41)
<220>
<221>UNSURE
<222>(67)
<220>
<221>UNSURE
<222>(71)
<220>
<221>UNSURE
<222>(72)
<400> 5797
Leu Thr Tyr Asp Lys Asn Asn Leu Met Ile Lys Leu Ser Asn Ile Thr
                                    10
```

```
Lys Val Phe Gln Gln Gly Asn Arg Thr Ile Gln Ala Leu Asn Asn Val
                                25
Ser Leu His Val Pro Ala Gly Gln Xaa Tyr Gly Val Ile Gly Ala Ser
                            40
Gly Ala Gly Lys Ser Thr Leu Ile Arg Cys Val Asn Leu Leu Glu Arg
                        55
Pro Thr Xaa Gly Gln Arg Xaa Xaa Trp Arg Pro Gly Ala His Arg Ser
                                        75
                    70
Leu Arg Lys Lys Asn Ser Pro Lys Arg Val Ala Gln Ile Gly Met Ile
                85
                                    90
Phe Leu His Phe Asn Leu Leu Ala Ser Arg Ser Val Phe Gly Asn Val
                                105
            100
                                                    110
Ala Leu Pro Leu Glu Leu Asp Phe Ser Pro Leu Glu Glu Ile Ser Arg
                            120
Arg Val Ser Glu Leu Leu Asp Leu Val Gly Leu Gly Asp Lys His Asp
                        135
                                            140
Ser Tyr Pro Ala Asn Leu Ser Gly Gly Leu Tyr Leu Arg Val Ser Ile
                    150
                                        155
Ala Arg Ala Leu Ala Asn Asn Pro Lys Val Leu Leu Cys Asp Glu Ser
                165
                                    170
Ser Ser Ala Leu Tyr Pro Ala Thr Thr Arg Ser Ile Leu Glu Leu
            180
                                185
<210> 5798
<211> 161
<212> PRT
<213> Enterobacter cloacae
<400> 5798
Lys Asp Ile Asn Arg Arg Leu Gly Leu Thr Ile Leu Leu Ile Thr His
1
                                    10
Glu Met Asp Val Val Lys Arg Ile Cys Asp Cys Val Ala Val Ile Ser
            20
                                25
Asn Gly Glu Leu Ile Glu Gln Asp Thr Val Ser Glu Val Phe Ser His
                            40
Pro Lys Thr Pro Leu Ala Gln Gln Phe Ile Gln Ser Thr Leu His Leu
Asp Ile Pro Glu Asp Tyr Leu Glu Arg Leu Lys Thr Glu Ala Val Ala
                    70
                                        75
Asp Ser Val Pro Met Leu Arg Met Glu Phe Thr Gly Gln Ser Val Asp
Ala Pro Leu Ser Glu Thr Ala Arg Arg Phe Asn Val Asn Asn Asn
                                105
Ile Ile Ser Ala Gln Met Asp Tyr Ala Gly Gly Val Lys Phe Gly Ile
```

115 120 125 Met Leu Thr Glu Met His Gly Thr Gln Glu Glu Thr Gln Ala Ala Ile

Ala Trp Leu Gln Glu His His Val Lys Val Glu Val Leu Gly Tyr Val

140

155

```
<210> 5799
```

<sup>&</sup>lt;211> 205

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;220>

<sup>&</sup>lt;221>UNSURE

<sup>&</sup>lt;222>(205)

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<400> 5799
Arg Tyr Trp Val Met Ser Glu Pro Met Met Trp Leu Leu Val Arg Gly
Val Trp Glu Thr Leu Ala Met Thr Phe Val Ser Gly Phe Phe Gly Phe
Val Ile Gly Leu Pro Val Gly Val Leu Leu Tyr Val Thr Arg Pro Gly
Gln Ile Ile Glu Asn Ala Lys Leu Tyr Arg Thr Leu Ser Ala Leu Val
                        55
Asn Ile Phe Arg Ser Ile Pro Phe Ile Ile Leu Leu Val Trp Met Ile
                    70
                                        75
Pro Phe Thr Arg Val Ile Val Gly Thr Ser Ile Gly Leu Gln Ala Ala
                                    90
                8.5
Ile Val Pro Leu Thr Val Gly Ala Ala Pro Phe Ile Ala Arg Met Val
            100
                                105
Glu Asn Ala Leu Leu Glu Ile Pro Thr Gly Leu Ile Glu Ala Ser Arg
                            120
Ala Met Gly Ala Thr Pro Met Gln Ile Val Arg Lys Val Leu Leu Pro
                        135
Glu Ala Leu Pro Gly Leu Val Asn Ala Ala Thr Ile Thr Leu Ile Thr
                    150
Leu Val Gly Tyr Ser Ala Met Gly Gly Ala Val Gly Ala Gly Gly Leu
                                    170
Gly Gln Ile Gly Tyr Gln Tyr Gly Tyr Ile Gly Tyr Asn Ala Thr Val
                                185
Met Asn Thr Val Leu Val Leu Val Val Leu Val Xaa
                            200
```

<210> 5800 <211> 210

<212> PRT

<213> Enterobacter cloacae

<400> 5800

Ala Leu Tyr Cys Ala Ala Ile His Glu Ile Leu Ala Glu Gln Ala Phe 10 Phe Arg Ser Lys Pro Val Ala Lys Ser Val Pro Ala Ile Phe Leu Asp 25 Arg Asp Gly Thr Ile Asn Val Asp His Gly Tyr Val His Glu Ile Asp 40 Glu Phe Glu Phe Ile Glu Gly Val Ile Asp Ala Met Arg Gln Leu Lys 55 Glu Met Gly Tyr Ala Leu Val Val Val Thr Asn Gln Ser Gly Ile Ala 70 75 Arg Gly Lys Phe Thr Glu Ala Gln Phe Glu Thr Leu Thr Glu Trp Met 85 90 Asp Trp Ser Leu Ala Asp Arg Gly Val Asp Leu Asp Gly Ile Tyr Tyr 100 105 110 Cys Pro His His Pro Gln Gly Ser Val Glu Ala Tyr Arg Gln Thr Cys 120 115 125 Asp Cys Arg Lys Pro His Pro Gly Met Phe Ile Ser Ala Gln Glu Phe 135 140 Leu His Ile Asp Met Ala Ala Ser Tyr Met Val Gly Asp Lys Leu Glu 155 150 Asp Met Gln Ala Ala Thr Ala Ala Gly Val Gly Thr Lys Val Leu Val 170 Arg Thr Gly Lys Pro Val Thr Pro Glu Ala Glu Asn Ala Ala Asp Trp 185 Val Ile Thr Ser Leu Ala Glu Leu Pro Lys Glu Ile Lys Lys His Gln

Lys

```
<210> 5801
<211> 175
<212> PRT
<213> Enterobacter cloacae
<400> 5801
Arg Arg Trp Lys Phe Ser Tyr Tyr Pro Leu Tyr Cys Pro Ile Pro Leu
Pro Arg Gly His Tyr Gly Leu Asn Thr Ser Met Ser Gln Thr Glu Thr
Thr Ala Pro Ser Lys Phe Ser Leu Leu Pro Gly Ser Ile Thr Arg Phe
Phe Leu Leu Ile Val Val Leu Leu Val Thr Met Gly Val Met Ile
                        55
Gln Ser Ala Val Asn Thr Trp Leu Lys Asp Lys Ser Tyr Gln Ile Val
                                        75
Asp Ile Thr His Ala Val His Lys Arg Ile Asp Thr Trp Arg Tyr Ala
                                    90
Thr Trp Gln Ile Tyr Asp Asn Ile Ala Ala Pro Ala Thr Ser Ser
            100
                                105
Gly Glu Gly Leu Gln Glu Thr Arg Leu Lys Gln Asp Val Tyr Tyr Leu
                            120
        115
Glu Lys Pro Gln Arg Lys Thr Glu Ala Leu Ile Phe Gly Ser His Asp
   130
                        135
Ser Ala Thr Leu Glu Ile Tyr Gln Arg Ile Ser Ser Tyr Leu Asp Thr
                    150
                                        155
Leu Trp Gly Pro Glu Asn Val Thr Val Val Pro Cys Ile Thr
                165
                                    170
<210> 5802
<211> 143
<212> PRT
<213> Enterobacter cloacae
<400> 5802
Leu Leu Ile Lys Asp Glu Leu Phe Ile Gln Glu Ile Lys Met Lys Gln
Thr Arg Leu Val Leu Ala Gly Ile Leu Val Leu Ala Pro Val Phe Ser
Ala Met Ala Ala Pro Gln Ala Ala Thr Gly Cys Glu Ala Lys Arg Gln
Asn Ile Glu Gln Gln Ile Glu His Ala Arg Thr His Asn Asn Asp His
Arg Val Ala Gly Leu Gln Lys Ala Leu Ser Glu Leu Asn Ala Asn Cys
                                        75
                    70
Thr Glu Glu Gly Leu Arg Ala Glu Arg Gln Ala Asp Val Arg Glu Lys
                85
                                    90
Glu Arg Lys Val Glu Glu Arg Arg Gln Glu Leu Ala Glu Ala Gln Ala
            100
                                105
Asp Gly Arg Thr Asp Lys Ile Ser Lys Lys Glu Arg Lys Leu Lys Asp
                           120
                                                125
Ala Gln Ala Glu Leu Asp Glu Ala Arg Ser Val Leu Asn Lys
                        135
<210> 5803
<211> 218
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 5803
Arg Thr Gln Pro Met Ala Gly Phe Leu Leu Phe Cys Pro Arg Tyr Ala
                                    10
Leu Asn Phe Pro Phe Cys Gln Val Ile Val Ile Phe Phe Pro Asp Asn
                                25
Glu Asn Asp Met Thr Leu Ser Ala Leu Lys Ala Gly Ser Leu Leu Leu
                            40
Leu Met Ile Leu Phe Tyr Thr Gly Leu Phe Thr Ser Asp Arg Val Thr
                        55
Trp Leu Met Glu Val Thr Pro Val Ile Ile Ile Pro Leu Leu Leu
                    70
                                        75
Ala Thr His Arg Arg Tyr Pro Leu Thr Pro Leu Leu Tyr Thr Leu Val
Phe Phe His Ala Ile Ile Leu Met Val Gly Gly Met Tyr Thr Tyr Ala
                                105
Lys Val Pro Val Gly Phe Glu Val Gln Glu Met Leu Gly Leu Ser Arg
                            120
Asn Pro Tyr Asp Lys Leu Gly His Phe Phe Gln Gly Leu Val Pro Ala
                        135
                                            140
Leu Ala Ala Arg Glu Ile Leu Leu Arg Gly Gly Tyr Val Arg Gly His
                    150
                                        155
Lys Met Thr Gly Phe Leu Val Cys Cys Val Ala Leu Ala Ile Ser Ala
                165
                                    170
Thr Phe Asn Ser Leu Ser Gly Gly Leu Leu Trp Arg Trp Asp Arg Val
            180
                                185
                                                     190
Arg Met Ile Phe Trp Gly Arg Arg Ala Ile His Gly Ile Pro Ser Leu
                            200
Ile Cys Phe Ala Arg Cys Leu Val Arg
<210> 5804
<211> 63
<212> PRT
<213> Enterobacter cloacae
<400> 5804
Leu Ile Glu Trp Trp Ala Ala Leu Ala Met Gly Gln Gly Ala Asp Asp
Phe Leu Gly Thr Gln Gly Asp Pro Trp Asp Thr Gln Ser Asp Met Phe
Cys Ala Leu Leu Gly Ala Leu Thr Thr Val Leu Ile Leu Gly Arg Phe
His Gln Arg Gln Leu Arg Arg Leu Asn Val Asp Ser Ala Leu
<210> 5805
<211> 123
<212> PRT
<213> Enterobacter cloacae
<400> 5805
Met Cys Pro Pro Arg Leu Leu Lys Thr Cys Gly Ala Glu Ile Ala Ile
                                    10
Ser Ile Pro Ala His Val Arg Leu Val Met Val Ala Glu Ala Pro Pro
                                25
Ala Leu Asn Glu Pro Leu Ile Glu Asp Val Leu Arg Ser Leu Lys Val
                            40
Thr His Asp Gln Val Leu Gln Leu Ala Pro Glu Ser Val Ala Met Leu
Pro Ser Asp Ser Arg Cys Asn Ser Trp Arg Ile Gly Ala Val Asp Glu
                    70
```

2183 Leu Pro Leu Glu Gly Ser Gln Ile Ser Ser Pro Ala Leu Asp Glu Leu 85 90 Lys Ala Asn Pro Lys Ala Arg Ser Ala Leu Trp Gln Gln Ile Cys Glu 105 Tyr Glu His Asp Phe Phe Pro His Asp Gly <210> 5806 <211> 164 <212> PRT <213> Enterobacter cloacae <400> 5806 Lys Pro Thr Gln Lys Arg Val Ala Arg Tyr Gly Asn Lys Phe Ala Asn 10 1 Met Asn Thr Ile Ser Ser Leu Thr Thr Ala Asp Leu Thr Thr Ala Phe 25 20 Ala Ile Glu Thr Arg Ala His Ala Phe Pro Trp Ser Glu Lys Thr Phe 40 Ala Ser Asn Gln Gly Glu Arg Tyr Leu Asn Leu Arg Leu Asp Val Asp 55 Gly Ala Met Ala Ala Phe Ala Ile Thr Gln Val Val Leu Asp Glu Ala 75 70 Thr Leu Phe Asn Ile Ala Val Asp Pro Ala Tyr Gln Arg Arg Gly Leu 85 90 Gly Arg Glu Leu Leu Glu His Leu Ile His Glu Leu Glu Thr Arg Asp 100 105 Val Phe Thr Leu Trp Leu Glu Val Arg Ala Ser Asn Val Ala Ala Ile 120 125 Ala Leu Tyr Glu Ser Leu Gly Phe Asn Glu Ala Thr Ile Arg Arg Asn 135 140 Tyr Tyr Pro Thr Ala Glu Gly Arg Glu Asp Ala Ile Ile Met Ala Leu 150 155 Pro Ile Gly <210> 5807 <211> 117 <212> PRT <213> Enterobacter cloacae <400> 5807 Glu Glu Leu Ile Met Thr Leu Ser Pro Tyr Leu Gln Glu Val Ala Lys Arg Arg Thr Phe Ala Ile Ile Ser His Pro Asp Ala Gly Lys Thr Thr Ile Thr Glu Lys Val Leu Leu Phe Gly Gln Ala Ile Gln Thr Ala Gly 40 Thr Val Lys Gly Arg Gly Ser Ser Gln His Ala Lys Ser Asp Trp Met 55 60 Glu Met Glu Lys Gln Arg Gly Ile Ser Ile Thr Thr Ser Val Met Gln 75

Phe Pro Tyr His Asp Cys Leu Val Asn Leu Leu Asp Thr Pro Gly His

Glu Asp Phe Ser Glu Asp Thr Tyr Arg Thr Leu Thr Gly Pro Glu Val

105

90

115 <210> 5808

<211> 262

Phe Thr Ser Asp

85

2184 <212> PRT <213> Enterobacter cloacae <400> 5808 Ala Ser Thr Arg Arg Leu Ser Ala Val Thr Thr Thr Pro Pro Gln Arg Asp Val Lys Thr Pro Leu Ser Trp Leu Cys Arg Leu Asp Asn Glu Asn 25 Lys Val Val Thr Met Lys Trp Asp Trp Ile Phe Phe Asp Ala Asp Glu 40 Thr Leu Phe Thr Phe Asp Ser Phe Gly Gly Leu Gln Arg Met Phe Leu 5.5 Asp Tyr Ser Val Thr Phe Thr Ala Glu Asp Phe Gln Asp Tyr Gln Ala 70 75 Val Asn Lys Pro Leu Trp Val Asp Tyr Gln Asn Gly Ala Ile Thr Ala 8.5 90 Leu Gln Leu Gln His Gln Arg Phe Asp Val Trp Ala Glu Arg Leu Asn 105 100 110 Val Ser Pro Gly Val Leu Asn Glu Ala Phe Leu Asn Ala Met Ala Asp 120 Ile Cys Ala Pro Leu Pro Gly Ala Val Ser Leu Leu Asp Ser Leu Lys 135 140 Gly Lys Val Lys Leu Gly Ile Ile Thr Asn Gly Phe Thr Ala Leu Gln 150 155 Gln Ile Arg Leu Glu Arg Thr Gly Leu Arg Asp His Phe Asp Ala Leu 165 170 Val Ile Ser Glu Glu Val Gly Val Pro Lys Pro Asp Pro Arg Ile Phe 185 190 Asp Tyr Ala Leu Ala Gln Ala Gly Asn Pro Asp Arg Asp Arg Val Leu 200 205 Met Val Gly Asp Thr Ala Glu Ser Asp Ile Leu Gly Gly Met Arg Ser 215 220 Gly Leu Ser Thr Val Trp Leu Asn Ala His Gly Arg Met Leu Pro Glu 230 235 Gly Ile Glu Pro Thr Trp Thr Val Thr Ser Leu Asn Glu Leu Glu Gln 245 250 Leu Leu Cys Lys Gln 260 <210> 5809 <211> 232 <212> PRT <213> Enterobacter cloacae <400> 5809 Lys Pro Asn Asp Arg Leu Leu Lys Arg Ser Val Phe Phe Met Ser Arg 1 1.0 Ser Leu Leu Thr Asn Glu Thr Ser Glu Leu Asp Leu Leu Asp Gln Arg 25\_ Pro Phe Asp Gln Thr Asp Phe Asp IIe Leu Lys Ser Tyr Glu Ala Val 40 Val Asp Gly Leu Ala Met Leu Ile Gly Ser His Cys Glu Ile Val Leu 55 His Ser Leu Gln Asp Leu Lys Cys Ser Ala Ile Arg Ile Ala Asn Gly 70 75

Glu His Thr Gly Arg Lys Ile Gly Ser Pro Ile Thr Asp Leu Ala Leu

Arg Met Leu His Asp Met Thr Gly Ala Asp Ser Ser Val Ser Lys Cys 100 105 110 Tyr Phe Thr Arg Ala Lys Ser Gly Val Leu Met Lys Ser Glu Thr Ile 115 120 125

90

```
Ala Ile Arg Asn Arg Glu His Arg Val Ile Gly Leu Leu Cys Ile Asn
                        135
Met Asn Leu Asp Val Pro Phe Ser Gln Ile Met Ser Thr Phe Ile Pro
                    150
                                        155
Pro Glu Thr Pro Asp Val Gly Ser Ser Val Asn Phe Ala Ser Ser Val
                                    170
                165
Glu Asp Leu Val Thr Gln Thr Leu Glu Phe Thr Ile Glu Glu Val Asn
                                185
            180
Ala Asp Arg Asn Val Ser Asn Asn Ala Lys Asn Arg Gln Ile Val Leu
                            200
                                                205
        195
Asn Leu Tyr Glu Lys Gly Ile Leu Ile Ser Lys Met Pro Ser Thr Gln
                        215
                                            220
Trp Pro Asp Arg Leu Asn Ile Ser
                    230
<210> 5810
<211> 228
<212> PRT
<213> Enterobacter cloacae
<400> 5810
Arg Pro Glu Ile Arg Tyr Ala Leu Gly Ser Phe Leu Gly Arg Tyr Met
Glu Asn Ser Leu Lys Glu Gln Glu Lys Leu Gly Ile Lys Leu Asp Lys
                                25
Asn Gln Leu Ile Ala Gly Val Gln Asp Ala Phé Ala Asp Lys Ser Lys
                                                 45
Leu Ser Asp Gln Glu Ile Glu Gln Thr Leu Gln Ala Phe Glu Ala Arg
                        55
Val Lys Gly Ala Ala Gln Thr Lys Met Glu Ala Asp Ala Lys Asp Asn
                                        75
Glu Ala Lys Gly Lys Ala Tyr Arg Asp Lys Phe Ala Lys Glu Lys Gly
                85
                                    90
Val Lys Thr Ser Ser Thr Gly Leu Ile Tyr Lys Val Glu Lys Glu Gly
            100
                                105
                                                     110
Thr Gly Asp Ala Pro Lys Asp Ser Asp Thr Val Val Asn Tyr Lys
                            120
        115
Gly Thr Leu Ile Asp Gly Lys Glu Phe Asp Asn Ser Tyr Thr Arg Gly
                        135
                                            140
Glu Pro Leu Ser Phe Arg Leu Asp Gly Val Ile Pro Gly Trp Thr Glu
                    150
                                        155
Gly Leu Lys Asn Ile Lys Lys Gly Gly Lys Ile Lys Leu Val Ile Pro
                                    170
                165
Pro Asp Leu Ala Tyr Gly Lys Thr Gly Val Pro Gly Ile Pro Ala Asn
                                185
            180
Ser Thr Leu Val Phe Asp Val Glu Leu Leu Asp Ile Lys Pro Ala Pro
                            200
                                                205
Lys Ala Asp Ala Lys Thr Asp Ala Pro Ala Asp Asp Lys Ala Ala Ala
                        215
Ala Lys Lys
225
<210> 5811
<211> 443
<212> PRT
<213> Enterobacter cloacae
<400> 5811
Thr Ser Pro Cys Asn Leu Ser Arg Ser Phe Gly Pro Leu Val Lys Ile
                                    10
```

Ala Thr Ala Thr Asp Arg Leu Lys Ala Ile Leu Ile His Gly Val Asn

```
20
                                 25
Val Val Thr Leu Thr Asp Gln Lys Gln Tyr Thr Ser Glu Ser Leu Asn
                            40
Ser Pro Met Asp Leu Ile Met Ser Ile Leu Thr Ala Gln Arg Ala His
Glu Glu Ser Gln Ser Lys Ser Lys Arg Met Arg Glu Val Trp Ala Lys
                    70
                                         75
Lys Arg Thr Glu Ala Glu Glu Ser Gly Lys Ile Ile Thr Lys Ser Cys
                                     90
                85
Pro Arg Trp Leu Thr Val Asn Ser Asp Arg Thr Gly Phe Glu Pro Ile
            100
                                 105
                                                     110
Pro Glu His Val Glu Ser Ile Arg Leu Met Phe Glu Met Arg Leu Ser
        115
                            120
                                                 125
Gly Lys Gly Phe Ala Gly Ile Ala Gln Ala Leu Asn Glu Ser Gly Arg
    130
                        135
                                             140
Leu Thr Leu Thr Gly Arg Ser Lys Gly Trp Asn Gln Ser Ser Val Gln
                    150
Gln Leu Leu Ser Asn Lys Ala Leu Ile Gly Tyr Lys Ile Pro Ser Arg
                                     170
Lys Ala Val Val Asn Tyr Ile Glu Ile Pro Asp Tyr Phe Pro Ser Val
                                 185
Ile Pro Leu Glu Gln Phe Gln Gln Val Gln Leu Ile Gly Ala Asp Lys
                             200
Gln Gly Gln Arg Ala Ala Asn Asp Arg Pro Met Asn Val Asn Leu Phe
                        215
Arg Gly Val Met Lys Cys Ala Glu Cys Gly Ala Thr Val Ile Val Ser
                    230
                                         235
Gly Val Asp Asp Lys Arg Ala Gly Tyr Tyr Ser Cys Ser Phe Arg Arg
                245
                                     250
Leu Gly Arg Cys Asn Thr Ser Lys Pro Met Asn Arg Gly Met Val Asp
                                 265
                                                     270
Glu Ala Leu Ile Lys Gly Leu Leu Tyr Ser Leu Asp Arg Leu Thr Leu
                            280
                                                 285
Gln Gly Gln Gly Glu Asn Pro Leu Ile Lys Leu Glu Ala Lys Arg Ala
                        295
                                             300
Asp Leu Thr Glu Arg Ser Gln Lys Leu Leu Ala Ala Leu Glu Ile Ala
                    310
                                         315
Asp Asp Val Thr Ala Ile Ala Thr Arg Leu Lys Ala Val Thr Asp Glu
                325
                                     330
Ile Lys Ala Ile Glu Thr Gln Ile Lys Thr Cys Lys Asp Leu Glu Gln
                                 345
                                                     350
            340
Val His Thr Val Gln Ser Val Gln Gly Met Asp Leu Thr Val Lys Ser
                            360
                                                 365
Gln Arg Glu Glu Val Gln Leu Leu Val Lys Lys Thr Phe Arg Glu Ile
                        375
                                             380
Asn Leu Asp Gly Ile Arg Lys Thr Val Asn Val Tyr Leu His Asn Gly
                    390
                                         395
Leu Thr Leu Leu Asn Val Pro Val Asn Gln Ile Val Asp Ala Gly Glu
                405
                                     410
Trp Ile Glu Leu Leu Pro Val Ile Gly Gly Asp Thr Val Asp Phe Lys
                                425
Asp Ile Ser Phe Lys Ala Pro Arg Tyr Leu Asp
```

<210> 5812

<211> 223

<212> PRT

<213> Enterobacter cloacae

<400> 5812

Gly Ser Thr Met Tyr Gln His His Asn Trp Gln Gly Ala Leu Leu Asp

```
10
Tyr Pro Val Ser Lys Val Val Cys Val Gly Ser Asn Tyr Ala Lys His
                                25
Ile Gln Glu Met Gly Ser Ala Val Pro Glu Glu Pro Val Leu Phe Ile
Lys Pro Glu Thr Ala Leu Cys Asp Ile Arg Gln Pro Leu Val Leu Pro
                        55
Gln Gly Leu Gly Ser Val His His Glu Val Glu Leu Ala Val Leu Ile
                    70
                                        75
Gly Ala Thr Leu Arg Gln Ala Thr Glu Glu His Val Glu Lys Ala Ile
                85
                                    90
Ala Gly Tyr Gly Val Ala Leu Asp Leu Thr Leu Arg Asp Val Gln Gly
            100
                                105
Lys Met Lys Lys Ala Gly Gln Pro Trp Glu Lys Ala Lys Gly Phe Asp
        115
                            120
                                                125
Asn Ser Cys Pro Ile Ser Gly Phe Ile Pro Val Ser Glu Phe Thr Asp
                        135
                                            140
Asp Pro Gln Asn Thr Pro Leu Ser Leu Lys Val Asn Gly Glu Ile Arg
                    150
Gln Gln Gly Thr Thr Ala Asp Met Ile His Lys Ile Val Pro Leu Ile
                                    170
Ala Tyr Met Ser Arg Phe Phe Thr Leu Lys Pro Gly Asp Val Ile Leu
                                185
Thr Gly Thr Pro Glu Gly Val Gly Pro Leu Leu Ser Gly Asp Glu Leu
                            200
Asp Val Ser Phe Asn Gly Leu Ser Leu Lys Thr Arg Val Leu
<210> 5813
<211> 134
<212> PRT
<213> Enterobacter cloacae
<400> 5813
His Pro Gly Leu Thr Gln Phe Ala Ile Asn Arg Asn Thr Ser Pro Arg
                                    10
Tyr Ser Glu Glu Tyr Gln Ala Cys Tyr Ser Gln Glu Tyr Ile Glu Ala
                                25
Ser Asn His Pro Leu Ile Gln Ser Lys Asn Met Phe Cys Val Ile Tyr
                            40
                                                45
Arg Ser Thr Ser Arg Asp Gln Thr Tyr Leu Tyr Val Glu Lys Lys Asp
                        55
Asp Phe Ser Arg Val Pro Glu Glu Leu Met Lys Ser Phe Gly Arg Pro
                    70
                                        75
Gln Leu Ala Met Leu Leu Pro Leu Asp Gly Arg Lys Leu Val Asn
                85
                                    90
Ala Asp Leu Glu Lys Val Lys Lys Ala Leu Thr Glu Gln Gly Tyr Tyr
                               105
Leu Gln Leu Pro Pro Pro Glu Asn Leu Leu Lys Gln His Leu Glu
       115
                            120
Val Ser Gly Lys Lys
   130
<210> 5814
<211> 242
<212> PRT
<213> Enterobacter cloacae
<400> 5814
Gln Gly Ile Ser Met Ala Arg Ile Ile Val Val Thr Ser Gly Lys Gly
```

Gly Val Gly Lys Thr Thr Ser Ser Ala Ala Ile Ala Thr Gly Leu Ala 25 Gln Lys Gly Lys Lys Thr Val Val Ile Asp Phe Asp Ile Gly Leu Arg 40 Asn Leu Asp Leu Ile Met Gly Cys Glu Arg Arg Val Val Tyr Asp Phe Val Asn Val Ile Gln Gly Asp Ala Thr Leu Asn Gln Ala Leu Ile Lys 70 75 Asp Lys Arg Thr Glu Asn Leu Tyr Ile Leu Pro Ala Ser Gln Thr Arg 8.5 90 Asp Lys Asp Ala Leu Thr Arg Glu Gly Val Glu Lys Val Leu Asp Asp 105 100 Leu Lys Lys Met Glu Phe Asp Phe Val Val Cys Asp Ser Pro Ala Gly 120 125 115 Ile Glu Thr Gly Ala Leu Met Ala Leu Tyr Phe Ala Asp Glu Ala Ile 135 140 Ile Thr Thr Asn Pro Glu Val Ser Ser Val Arg Asp Ser Asp Arg Ile 150 155 Leu Gly Ile Leu Ala Ser Lys Ser Arg Arg Ala Glu Asn Gly Gln Glu 170 Pro Ile Lys Glu His Leu Leu Thr Arg Tyr Asn Pro Gly Arg Val 185 190 Asn Lys Gly Asp Met Leu Ser Met Glu Asp Val Leu Glu Ile Leu Arg 200 Ile Lys Leu Val Gly Val Ile Pro Glu Asp Gln Ser Val Leu Arg Ala 215 220 Ser Asn Gln Gly Glu Pro Leu Ile Leu Asp Thr Gln Ala Glu Ala Gly 230 235 Lys Ala

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<210> 5815
<211> 269
<212> PRT
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<213> Enterobacter cloacae

<400> 5815

Arg Val Val Ala Cys Leu Asn Ile Leu Leu Thr Ile Thr Cys Leu Ile 10 Leu Phe Gly Ile Ser Arg Arg Cys Val Ala Val Asn Ser Lys Leu Ser 25 Lys Ala Arg Met Ser Asn Thr Pro Ile Glu Leu Lys Gly Ser Ser Phe 40 Thr Leu Ser Val Val His Leu His Asp Ala Lys Pro Glu Val Ile Arg 5.5 Gln Ala Leu Glu Asp Lys Ile Ala Gln Ala Pro Ala Phe Leu Lys His 70 75 Ala Pro Val Val Val Asn Val Ser Asp Leu Glu Gly Pro Val Asn Trp 90 8.5 Lys Arg Leu Gln Gln Ala Val Thr Ser Thr Gly Leu Arg Ile Val Gly 105 Ile Ser Gly Cys Lys Asp Ala Glu Leu Lys Ala Glu Ile Glu Arg Ala 120 Gly Leu Pro Leu Leu Asn Glu Gly Lys Glu Lys Ala Pro Arg Ala Thr 135 140 Pro Ala Thr Val Pro Ala Pro Pro Pro Pro Ala Gln Asn Val Ala Pro 150 Val Thr Lys Thr Arg Leu Ile Asp Leu Pro Val Arg Ser Gly Gln Arg 170 Ile Tyr Ala Pro Asn Cys Asp Leu Ile Val Thr Ser His Val Ser Ala 185

Gly Ala Glu Leu Ile Ala Asp Gly Asn Ile His Val Tyr Gly Met Met
195

Arg Gly Arg Ala Leu Ala Gly Ala Ser Gly Asp Arg Glu Ala Gln Ile
210

Phe Cys Thr His Leu Thr Ala Glu Leu Val Ser Ile Ala Gly Glu Tyr
225

Trp Leu Ser Asp Lys Ile Pro Ala Glu Phe Tyr Gly Lys Ala Ala Arg
245

Leu Gln Leu Ala Asp Asn Ala Leu Thr Val Gln Pro

<210> 5816 <211> 616

<212> PRT

<213> Enterobacter cloacae

<400> 5816 Phe Val Gln Leu Ile Asn Leu Leu Ser Ile Arg Ser Ile Arg Arg Trp 10 Leu Asn Arg Ser His Gly Leu Met Asn Arg Lys Ile Tyr Asn Asn Val 20 25 Lys Ile Phe Met Ile Val Leu Ala Leu Ser Leu Ile Thr Ile Pro Phe 40 Ser Arg Tyr Ile Ser Pro Arg Ala Ile Val Asn Glu Asn Asp Val Tyr 55 Leu Ala Trp Leu Pro Leu Ser Ala Met Leu Ala Ile Val Leu Leu Phe 70 75 Gly Arg Arg Ala Ile Ile Pro Leu Leu Ile Gly Phe Ser Val Thr Asn 90 Ile Tyr Tyr Phe Asp Leu Ala Leu Leu Gln Ser Ser Val Leu Leu Ile 100 105 Cys Gln Thr Phe Ala Val Phe Ala Ala Cys Gly Val Ile Arg Leu Met 120 Leu Gly Lys Arg Trp Arg His Ser Ile Pro Asn Lys Tyr Ile Gly Ile 135 140 Arg Ile Phe Trp Leu Gly Phe Val Val Pro Val Gly Ile Lys Leu Ser 150 155 Met Tyr Leu Ala Gly Tyr Leu Phe Asp Phe Pro Val Thr Ile Ser Ser 170 Tyr Phe Gly Glu Gly Ser Ala Ile Tyr Asn Val Ile Asp Ile Gln Ser 180 185 Leu Ile Cys Ala Ala Leu Ile Phe Thr Met Met Phe Tyr Tyr Pro Leu 205 195 200 Arg Met Ile Ile Asn Pro Arg Tyr Ala Arg Thr Phe Trp Arg Arg Ser 215 220 Val Lys Pro Leu Phe Cys His Lys Lys Val Leu Phe Ile Val Val Trp 230 235 Leu Met Leu Leu Val Ser Met Ile Ala Ile Leu Cys Ala Pro Phe Glu 250 245 Ser Gln Phe Ile Ala Gly Tyr Leu Met Pro Ile Val Phe Ile Leu Phe 265 Thr Leu Gly Ile Gly Arg Leu Ser Tyr Ala Leu Ile Ser Leu Leu Trp 280 285 Ala Ala Ser Ala Leu Met Leu Leu Thr Tyr Asn Tyr Asn Phe Leu Asn 295 300 Gly Val Glu Ser Gly His Ser Leu Ser Phe Ile Leu Ser Val Leu Ile 310 315 Ser Phe Ala Ile Cys Leu Leu Tyr Met Ser Arg Ile Tyr Gln Lys Ser 325 330 Glu Trp Leu Lys Gln Gly Trp Gln Glu Arg Ala Leu Thr Asp Pro Leu 345

```
Thr Gly Leu Pro Asn Ile Arg Ala Leu Glu Val Phe Leu Gln His His
                            360
Pro Glu Ala Lys Ile Cys Cys Leu Arg Leu Asp Asn Leu Glu Phe Leu
                        375
                                            380
Ser Arg His Tyr Gly Ile Leu Met Arg Val His Cys Lys Lys Met Ile
                    390
                                        395
Thr Ala Ser Leu Gln Pro Leu Leu Gln Lys Asp Glu Lys Leu Phe Gln
                                    410
                405
Leu Pro Gly Ser Glu Leu Val Val Leu Leu Gly Pro Gly Thr Ala
            420
                                425
                                                     430
Glu Arg Leu Gln Tyr Met Val Asp His Leu Asn Ser Arg Lys Ile Val
                            440
Trp Asn Lys Thr Glu Leu Asp Ile Glu Phe Gly Ala Ser Trp Gly Glu
                        455
Val Pro Asp Gly Glu Ser Leu His His Thr Leu Gly Gln Leu Ser Trp
                    470
                                         475
Leu Ser Glu Gln Ser Cys Gly Gly His Asn Val Leu Ala Leu Thr Asn
                485
                                    490
Ser Leu Asp Asp Val Ser Gly Gln Thr Thr Asp Arg Val Leu Met Leu
                                505
Ala Arg Ile Lys Arg Ala Leu Asp Ile Gly Gly Leu His Leu Tyr Ala
                            520
Gln Pro Ile His Thr Ala Arg Gly Glu Arg Tyr Phe Asp Ile Pro Ser
                        535
Thr Leu Glu Ser Asp Gly Glu Ile Leu His Pro Asp Arg Leu Ile Pro
                    550
                                        555
Pro Met Ala Gln Phe Asn Leu Asn Pro Arg Phe Asp Ser Asn Phe Trp
                565
                                    570
Asn Lys Cys Gly Cys Arg Phe Ala Thr Thr Pro Leu Glu Leu Ile Glu
                                585
Ser Pro Pro Arg Gln Thr Asp Ala Leu Asn Leu Lys Gln His Lys Met
        595
                            600
Gly Ala Lys Phe Phe Ala Phe
    610
<210> 5817
<211> 502
<212> PRT
<213> Enterobacter cloacae
<400> 5817
Arg Ala Gly Phe Val Glu Asn Val Ala Ala Thr Ala Gln Thr Val Glu
                                    10
Gln Leu Leu Lys Leu Gly Phe Thr Val Ala Ile Glu Ser Gly Ala Gly
                                25
Thr Leu Ala Ser Phe Asp Asp Glu Ala Phe Thr Gln Ala Gly Ala Asp
                            40
Val Val Asp Gly Ala Glu Val Trp Gln Ser Pro Ile Ile Leu Lys Val
                        55
                                            60
Asn Ala Pro Glu Glu Gly Glu Ile Glu Leu Leu Asn Ala Gly Thr Thr
                    70
                                        75
Leu Val Ser Phe Val Trp Pro Ala Gln Asn Pro Glu Leu Met Glu Lys
                                    90
Leu Ala Ala Arg Gly Val Thr Val Met Ala Met Asp Ser Val Pro Arg
                                105
```

Ile Ser Arg Ala Gln Ser Leu Asp Ala Leu Ser Ser Met Ala Asn Ile 115 120 125 Ala Gly Tyr Arg Ala Ile Val Glu Ala Ala His Glu Phe Gly Arg Phe

Phe Thr Gly Gln Ile Thr Ala Ala Gly Lys Val Pro Pro Ala Lys Val

140

155

```
Met Val Ile Gly Ala Gly Val Ala Gly Leu Ala Ala Ile Gly Ala Ala
               165
                                    170
Asn Ser Leu Gly Ala Ile Val Arg Ala Phe Asp Thr Arg Pro Glu Val
           180
                                185
Lys Glu Gln Val Gln Ser Met Gly Ala Glu Phe Leu Glu Leu Asp Phe
                            200
                                                205
Lys Glu Glu Ala Gly Ser Gly Asp Gly Tyr Ala Lys Val Met Ser Glu
                        215
                                            220
Ala Phe Ile Lys Ala Glu Met Ala Leu Phe Ala Ala Gln Ala Lys Glu
                                        235
                    230
Val Asp Ile Ile Val Thr Thr Ala Leu Ile Pro Gly Lys Pro Ala Pro
                245
                                    250
Lys Leu Ile Thr Arg Glu Met Val Asp Ser Met Gln Pro Gly Ser Val
                                265
                                                    270
Ile Val Asp Leu Ala Ala Gln Asn Gly Gly Asn Cys Glu Tyr Thr Val
        275
                            280
                                                285
Pro Asn Gln Val Thr Thr Ala Asn Gly Val Lys Val Ile Gly Tyr
                        295
                                            300
Thr Asp Leu Pro Gly Arg Leu Pro Thr Gln Ser Ser Gln Leu Tyr Gly
                    310
                                        315
Thr Asn Leu Val Asn Leu Leu Lys Leu Leu Cys Lys Glu Lys Asp Gly
                325
                                    330
Asn Ile Thr Val Asp Phe Asp Asp Val Val Arg Gly Val Thr Val
            340
                                345
Val Arg Glu Gly Glu Ile Thr Trp Pro Ala Pro Pro Ile Gln Val Ser
        355
                            360
Ala Gln Pro Gln Ala Ala Pro Lys Ala Ala Pro Glu Pro Ala Glu Pro
                        375
                                            380
Ala Lys Pro Ala Ser Pro Trp Arg Lys Tyr Ala Ile Met Ala Leu Val
                    390
                                        395
Ile Ile Leu Phe Gly Trp Leu Ala Asp Val Ala Pro Lys Glu Phe Leu
                405
                                    410
Gly His Phe Thr Val Phe Ala Leu Ser Cys Val Val Gly Tyr Tyr Val
                                425
Val Trp Asn Val Ser His Ala Leu His Thr Pro Leu Met Ser Val Thr
                            440
Asn Ala Ile Ser Gly Ile Ile Val Val Gly Ala Leu Leu Gln Ile Gly
                        455
                                            460
His Gly Gly Trp Ile Ser Phe Leu Ser Phe Ile Ala Val Leu Ile Ala
                    470
                                        475
Ser Ile Asn Ile Phe Gly Gly Phe Thr Val Thr Gln Arg Met Leu Lys
                485
                                    490
Met Phe Arg Lys Gly
            500
```

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<210> 5818

<211> 193

<212> PRT

<213> Enterobacter cloacae

<220>

<221>UNSURE

<222>(13)

<220>

<221>UNSURE

<222>(58)
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<220> <221>UNSURE <222>(83)

<400> 5818 Gln Arg Gly Asn Leu Ile Trp Thr Trp Tyr Gly Ala Xaa Ile Phe His Thr Pro Val Asn Glu Val Ala His Gly Lys Trp Ala Leu Leu Thr Ser 25 Gly Ser Lys Ser Phe His Ile Pro Ala Leu Thr Gly Ala Trp Gly Leu 40 Phe Ala Asp Asp Ala Ser Arg Asn Ala Xaa Leu Asn Ala Leu Lys Gly 55 Arg Asp Gly Leu Ser Ser Leu Ser Val Leu Ala Leu Thr Ala His Ile 70 75 Ala Ala Xaa Arg Gln Gly Glu Pro Trp Leu Asp Ala Leu Arg Thr Tyr 8.5 90 Leu Glu Glu Asn Leu Arg Tyr Val Ala Arg Glu Leu Asn Ser Ala Phe 100 105 Pro Ala Leu Ser Trp Gln Pro Pro Glu Ala Thr Tyr Leu Ala Trp Ile 120 Asp Leu Ser Pro Leu Gly Ile Asp Asp Asn Thr Leu Gln Lys Val Leu 135 Ile Glu Gln Gln Lys Val Ala Ile Met Pro Gly Tyr Thr Tyr Gly Ala 150 155 Glu Gly Lys Gly Tyr Val Arg Leu Asn Ala Gly Cys Pro Arg Ser Lys 170 Leu Glu Gln Gly Val Gln Arg Leu Ile Ala Gly Ile Asn Thr Leu Leu 180 185

<210> 5819 <211> 337 <212> PRT <213> Enterobacter cloacae

<400> 5819

Pro Ala Lys Ser Ala Thr Met Ile Asp Thr Arg Leu Pro Leu Thr Asp 10 Ile His Arg His Leu Asp Gly Asn Ile Arg Ala Gln Thr Ile Leu Asp 25 Leu Gly Arg Gln Phe Asn Leu Thr Leu Pro Ala Glu Thr Leu Glu Thr 40 Leu Ile Pro His Val Gln Val Thr Ser Asn Glu Pro Asp Leu Val Ser 55 Phe Leu Ser Lys Leu Asp Trp Gly Val Lys Met Leu Ala Ser Val Asp 75 70 Ala Cys Arg Arg Val Ala Phe Glu Asn Ile Glu Asp Ala Ala Arg Asn 85 90 Gly Leu His Tyr Val Glu Leu Arg Phe Ser Pro Gly Tyr Met Ala Met 100 105 Thr His Asn Leu Pro Val Ala Gly Val Val Glu Ala Val Ile Glu Gly 120 Val Arg Glu Gly Cys Lys Thr Phe Asp Val Gln Ala Arg Leu Ile Gly 135 Ile Met Ser Arg Thr Phe Gly Glu Ala Ala Cys Leu Gln Glu Leu Glu 150 155 Ala Leu Leu Ala His Arg Asp Gln Ile Thr Ala Ile Asp Leu Ala Gly 170 165 Asp Glu Leu Gly Phe Pro Gly Ser Leu Phe Leu Ser His Phe Asn Arg 185

Ala Arg Asp Ala Gly Trp His Ile Thr Val His Ala Gly Glu Ala Ala 195 200 205

```
Gly Pro Glu Ser Ile Trp Gln Ala Ile Arg Glu Leu Gly Ala Glu Arg
                        215
                                             220
Ile Gly His Gly Val Lys Ala Ile Glu Asp Arg Ala Leu Met Asp Phe
                    230
                                        235
Leu Ala Glu Gln Arg Ile Gly Ile Glu Ser Cys Leu Thr Ser Asn Ile
                245
                                    250
Gln Thr Ser Thr Val Ala Ser Leu Ala Gln His Pro Leu Lys Thr Phe
                                265
                                                     270
Leu Glu His Gly Val Leu Ala Ser Leu Asn Thr Asp Asp Pro Ala Val
                            280
                                                 285
Gln Gly Val Asp Ile Ile His Glu Tyr Asn Ile Ala Ala Pro Gln Ala
                        295
                                             300
Gly Leu Ser Arg Glu Gln Ile Arg Gln Ala Gln Ile Asn Gly Leu Glu
                    310
                                         315
Ile Ala Phe Leu Ile Phe Thr Thr Arg Ala Glu Arg Ser Thr Leu Cys
                325
                                     330
Val
<210> 5820
<211> 133
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(126)
<400> 5820
Arg Asp Gln Arg Ala Gly Asn Ile Pro Leu Ser Cys Met Ala Gly Ala
                                    10
His Glu Phe Arg Gln His Gly Phe His Ala Arg Gln Val Gly His Leu
Leu Ala His Val Leu Glu Leu Val Phe Gly Gln Ala Ala Gly Leu Leu
                            40
Ala Val Gly Ala Ile Val Glu Pro Gln Gln Leu Gly Asn Leu Val Gln
Thr Glu Pro Gln Pro Leu Cys Arg Phe His Glu Phe His Pro Asn His
                    70
Val Arg Leu Pro Ile Ala Ala Asp Ala Ala Val Arg Leu Val Arg Phe
                                     90
Pro Gln Gln Ala Leu Ala Leu Ile Glu Ala Asp Cys Leu His Val Asp
                                105
                                                     110
Pro Gly Arg Leu Gly Lys Asn Ala Asn Gly Gln Val Phe Xaa Ile Ile
        115
                            120
Phe His Ile Ala
    130
<210> 5821
<211> 99
<212> PRT
<213> Enterobacter cloacae
<400> 5821
Gly Ile Ala Asp Leu Ala Arg Pro Ala Ser Pro Cys Ser Asp Ala Ile
                                    10
Asn Gly Gln Glu Thr Phe Pro Phe Arg Ala Trp Gln Ala His Thr Ser
                                25
Ser Asp Ser Thr Val Ser Met Arg Ala Lys Ser Ala Ile Phe Ser Arg
                            40
```

Thr Ser Leu Ser Leu Cys Ser Ala Arg Leu Leu Ala Ser Ser Gln Trp

<222>(82)

```
50
                         55
                                              60
Val Pro Ser Ser Ser Arg Asn Ser Ser Ala Ile Ser Ser Arg Leu Asn
                    70
                                         75
Pro Ser Arg Cys Ala Asp Phe Thr Asn Phe Thr Arg Thr Thr Ser Ala
                                     90
                                                           95
Ser Pro
<210> 5822
<211> 113
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(14)
<220>
<221>UNSURE
<222>(72)
<220>
<221>UNSURE
<222>(73)
<220>
<221>UNSURE
<222>(74)
<220>
<221>UNSURE
<222>(75)
<220>
<221>UNSURE
<222>(76)
<220>
<221>UNSURE
<222>(77)
<220>
<221>UNSURE
<222>(78)
<220>
<221>UNSURE
<222>(79)
<220>
<221>UNSURE
<222>(80)
<220>
<221>UNSURE
<222>(81)
<220>
<221>UNSURE
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```
<220>
<221>UNSURE
<222>(83)
<220>
<221>UNSURE
<222>(84)
<220>
<221>UNSURE
<222>(85)
<400> 5822
Pro Arg Pro Pro Trp Gln Lys Arg Gln Trp Ser Gly Phe Xaa Asn Tyr
                                    10
Phe Pro Tyr Arg Leu Thr Pro Tyr Met Ser Thr Glu Val Arg Leu Arg
Tyr Pro Ile Gln Ile Gln Lys Gly Gln Arg Met Ser Glu Pro Thr Lys
Arg Arg Gly Ala Leu Phe Ala Arg Gly Leu Ala Gly Ile Leu Ala Ser
Thr Cys Cys Leu Gly Ala Leu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
Xaa Xaa Xaa Xaa Gln Arg Phe Leu Pro Leu Lys Pro Pro Phe Ile
Gly Leu Lys Met Phe Phe Gly Ser Gln Phe Leu Pro Ala Val Lys Glu
<210> 5823
<211> 221
<212> PRT
<213> Enterobacter cloacae
<400> 5823
Lys Glu Ala Ser Glu Ala Glu Asn Val Val Lys Lys Lys Lys Lys Lys
                                    10
Lys Lys Lys Lys Lys Ile Ile Ala Pro Pro Gly Ser Arg Ser Met
            20
                                25
Gln Glu Cys Arg Pro Ala Arg Gly Arg Arg Ala His Arg Ala Val Leu
                            40
Leu Val Gln Thr Tyr Val Gly Pro Phe Glu Phe Gly Leu Asp Ser Val
                        55
                                            60
Thr Leu Leu Pro Tyr Ser Cys Thr Glu Ser Ser Asp Met Glu Asn Asn
                    70
                                        75
Leu Glu Asn Leu Thr Ile Gly Val Phe Ala Lys Ala Ala Gly Val Asn
                85
                                    90
Val Glu Thr Ile Arg Phe Tyr Gln Arg Lys Gly Leu Leu Arg Glu Pro
                                105
Asp Lys Pro Tyr Gly Ser Ile Arg Arg Tyr Gly Glu Ala Asp Val Val
                            120
Arg Val Lys Phe Val Lys Ser Ala Gln Arg Leu Gly Phe Ser Leu Asp
                       135
                                            140
Glu Ile Ala Glu Leu Leu Arg Leu Asp Asp Gly Thr His Cys Glu Glu
                    150
                                        155
Ala Ser Ser Leu Ala Glu His Lys Leu Lys Asp Val Arg Glu Lys Met
                                    170
Ala Asp Leu Ala Arg Met Glu Thr Val Leu Ser Glu Leu Val Cys Ala
```

180 185 190 Cys His Ala Arg Lys Gly Asn Val Ser Cys Pro Leu Ile Ala Ser Leu

200 Gln Gly Glu Ala Gly Leu Ala Arg Ser Ala Met Pro 210 215 <210> 5824 <211> 320 <212> PRT <213> Enterobacter cloacae <400> 5824 Arg Lys Leu Ala Pro Ala Leu Ile Thr Gly Asn Thr Ile Val Ile Lys Pro Ser Glu Phe Thr Pro Asn Asn Ala Ile Ala Phe Ala Lys Ile Val 25 Asp Glu Ile Gly Leu Pro Lys Gly Val Phe Asn Leu Val Leu Gly Arg 40 Gly Glu Thr Val Gly Gln Glu Leu Ala Gly Asn Pro Lys Val Ala Met 5.5 Val Ser Met Thr Gly Ser Val Gly Ala Gly Glu Lys Ile Met Ala Ala 70 75 Ala Ala Lys Asn Ile Thr Lys Val Gly Leu Glu Leu Gly Gly Lys Ala 85 90 Pro Ala Ile Val Met Gly Asp Ala Asp Leu Glu Leu Ala Val Lys Ala 100 105 Ile Val Asp Ser Arg Val Ile Asn Thr Gly Gln Val Cys Asn Cys Ala 120 125 Glu Arg Val Tyr Val Gln Lys Gly Ile Tyr Asp Arg Phe Val Asn Arg 135 140 Leu Gly Glu Ala Met Lys Ala Val Gln Phe Gly Asn Pro Ala Glu Arg 150 155 Thr Asp Ile Ala Met Gly Pro Leu Ile Asn Ala Ala Ala Leu Glu Arg 165 170 Val Glu Gln Lys Val Ala Arg Ala Val Glu Glu Gly Ala Lys Val Val 180 185 190 Leu Gly Gly Lys Ala Ala Glu Gly Lys Gly Tyr Phe Tyr Pro Pro Thr 200 205 Leu Leu Asp Val Arg Gln Asp Met Ala Ile Met His Glu Glu Thr 215 220 Phe Gly Pro Val Leu Pro Val Val Ala Phe Asp Thr Leu Glu Glu Ala 230 235 Leu Asn Met Ala Asn Asp Ser Asp Tyr Gly Leu Thr Ser Ser Val Tyr 250 Thr Gln Asp Leu Asn Val Ala Met Lys Ala Ile Lys Gly Leu Lys Phe 265 Gly Glu Thr Tyr Ile Asn Arg Glu Asn Phe Glu Ala Met Gln Gly Phe 280 His Ala Gly Trp Arg Lys Ser Gly Ile Gly Gly Ala Asp Gly Lys His 300 295 Gly Leu Asn Glu Tyr Leu Gln Thr Gln Val Val Tyr Leu Gln Ser 310 315 <210> 5825 <211> 148 <212> PRT <213> Enterobacter cloacae <400> 5825 Ser Gly Ala Pro Ser Met Arg Gly Gly Ser His Phe Gln Glu Arg Trp 10 Leu Cys Trp Arg Asp Asn Gly Tyr Leu Ser Gly Asn Asn Met Arg Thr

```
Lys Tyr Thr Gly Leu Gln Ile Ser Ile His Trp Leu Val Phe Leu Leu
Val Ile Met Ala Tyr Cys Ala Met Glu Phe Met Gly Trp Phe Pro Arg
                        55
Ser Asp Arg Pro Leu Ile Asn Met Ile His Val Ser Cys Gly Ile Ser
                                         75
                    70
Ile Leu Val Leu Met Val Ala Arg Leu Leu Ile Arg Leu Lys Phe Pro
                                     90
Ala Pro Pro Ile Gln Pro Lys Pro Lys Ala Met Ile Thr Gly Leu Ser
                                105
                                                     110
            100
His Leu Gly His Leu Val Ile Tyr Leu Leu Phe Ile Ala Leu Pro Leu
        115
                            120
Ile Cys Met Val Met Met Tyr Asn Arg Gly Asn Asp Trp Phe Ala Phe
   130
                        135
                                             140
Trp Pro Asp
145
<210> 5826
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5826
Cys Ile Thr Gly Glu Met Thr Gly Leu Arg Phe Gly Leu Thr Asn Pro
His Ala Ala Glu Gly Asn Phe Asp Leu Val Asp Thr Leu Lys Thr Trp
                                25
His Val Asn Leu Ala Ile Leu Gly Asn Ser Leu Ile Gly Leu His Pro
Leu Ala Pro Leu Asn Pro Pro Tyr Phe Leu Glu Lys Thr Thr Pro Leu
Leu Pro His
65
<210> 5827
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 5827
Ile His Asn Gly Leu His Gly Gln Leu Lys Ile Gly Ile Ala His His
                                    10
Asp Gly Arg Gly Phe Thr Ala Gln Leu Gln Pro His Phe Gly Asp Val
                                25
Phe Arg Ser Arg Ser His Asp Leu Phe Thr Cys Pro Asp Ala Ala Gly
                            40
                                                 45
His Ala Asp His Arg His Phe Arg Ile Pro Gly Gln Leu Leu Ser Asp
                        55
                                             60
Gly Phe Thr Pro Ala Gln His Gln Val Lys Asp Ala Phe Arg Gln Ala
                    70
                                        75
Asn Leu Ile Asp Asp Phe Gly Lys Arg Asn Gly Val Val Trp Gly Lys
                85
                                    90
Phe Ala Arg Phe Asp Asn Asp Gly Val Ala Gly Asp Gln Arg Gly Ser
                                105
Lys Leu Thr
       115
<210> 5828
<211> 130
<212> PRT
```

<213> Enterobacter cloacae

```
<400> 5828
Thr Arg Ser Ala Gln Leu His Thr Cys Pro Val Leu Met Thr Arg Glu
                                    10
Ser Thr Met Ala Phe Thr Ala Ser Ser Arg Ser Ala Ser Pro Ile Thr
                                25
Met Ala Gly Ala Leu Pro Pro Ser Ser Pro Thr Leu Val Met Phe
                            40
        35
Phe Ala Ala Ala Met Ile Phe Ser Pro Ala Pro Thr Leu Pro Val
                        55
Met Leu Thr Ile Ala Thr Phe Gly Phe Pro Ala Ser Ser Cys Pro Thr
                    70
                                        7.5
Val Ser Pro Arg Pro Ser Thr Arg Leu Lys Thr Pro Phe Gly Arg Pro
                85
                                    90
Ile Ser Ser Thr Ile Leu Ala Asn Ala Met Ala Leu Phe Gly Val Asn
                             ` 105
            100
                                                     110
Ser Leu Gly Leu Ile Thr Met Val Leu Pro Val Ile Ser Ala Gly Ala
                            120
Ser Leu
   130
<210> 5829
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 5829
Cys Arg Thr Asp Ser Pro Gly His Ser Pro Trp Phe Val Gln Cys Gly
                                    10
Val Val Asn Lys Ser Val Ser Glu Ala Phe Asp Ser Lys Ala Phe Leu
            20
                                25
Lys Thr Val Thr Ser Gln Pro Gly Val Tyr Arg Met Tyr Asp Ala Gly
Gly Thr Val Ile Tyr Val Gly Lys Ala Lys Asp Leu Lys Lys Arg Leu
                        55
Ser Ser Tyr Phe Arg Ser Asn Leu Ala Ser Arg Lys Thr Glu Ala Leu
                    70
                                        75
Val Ala Leu Ile His Asn Ile Asp Val Thr Val Thr His Thr Glu Thr
Glu Ala Leu Leu Glu His Asn Tyr Ile Lys Leu Tyr Gln Pro Arg
                                105
Tyr Asn Val Leu Leu Arg Asp Asp Lys Ser Tyr Pro Phe Ile Phe Leu
       115
                            120
                                                125
Ser Gly Asp Thr His Pro Arg Leu Ala Met His Arg Gly Ala Lys His
                        135
                                            140
Ala Lys Gly Glu Tyr Phe Gly Pro Phe Pro Asn Gly Tyr Ala Val Arg
                    150
                                        155
Glu Thr Leu Ala Leu Leu Gln Lys Ile Phe Pro Val Arg Gln Cys Glu
                165
                                    170
                                                        175
Asn Ser Val Tyr Arg Asn Arg Ser Arg Pro Cys Leu Gln Tyr Gln Ile
            180
                                185
                                                    190
Gly Arg Cys Leu Gly Pro Cys Val Glu Gly Leu Val Ser Glu Glu Glu
                            200
       195
                                                205
Tyr Ala Gln Gln Val Glu Tyr Val Arg Leu Phe Leu Ala Gly Lys Asp
                        215
                                            220
Asp Gln Val Leu Thr Gln Leu Ile Thr Arg Met Glu Lys Ala Ser Ala
                    230
                                        235
Ala Leu Gly Ile
```

```
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 5830
Gln Gln Thr Val Thr Val Ile Met Arg Phe Asn Ile Pro Thr Leu Leu
                                    10
Thr Leu Phe Arg Val Val Leu Ile Pro Phe Phe Val Leu Ala Phe Tyr
            20
                                25
Leu Pro Val Val Trp Ala Pro Phe Ala Cys Ala Leu Ile Phe Leu Ile
        35
                            40
Ala Ala Val Thr Asp Trp Phe Asp Gly Tyr Leu Ala Arg Arg Trp Asn
                        55
Gln Ser Thr Arg Phe Gly Ala Phe Val Leu Pro His Arg Pro Gly
<210> 5831
<211> 401
<212> PRT
<213> Enterobacter cloacae
<400> 5831
Leu Leu Val Trp Lys Lys Pro Ala Arg Arg Trp Glu Phe Glu Glu Ala
Ala Arq Ile Arq Asp Gln Ile Gln Ala Val Arq Arq Val Thr Glu Lys
            20
Gln Phe Val Ser Asn Thr Gly Asp Asp Leu Asp Val Ile Gly Val Ala
                            40
Phe Asp Ala Gly Leu Ala Cys Val His Val Leu Phe Ile Arg Gln Gly
Lys Val Leu Gly Ser Arg Ser Tyr Phe Pro Lys Val Pro Gly Gly Thr
                    70
                                        75
Glu Leu Gly Glu Val Val Glu Thr Phe Val Gly Gln Phe Tyr Leu Gln
Gly Ser Gln Met Arg Thr Leu Pro Ser Glu Ile Leu Leu Asp Phe Thr
                                105
Leu Asp Asp Lys Thr Leu Leu Ala Asp Ser Leu Ser Glu Leu Ala Gly
                            120
Arg Arg Val Asn Val Gln Thr Lys Pro Arg Gly Asp Arg Ala Arg Tyr
                        135
                                            140
Leu Lys Leu Ala Arg Thr Asn Ala Ala Thr Ala Leu Thr Thr Lys Leu
                    150
                                        155
Ser Gln Gln Ser Thr Val Ser Gln Arg Leu Thr Ala Leu Ala Thr Leu -
                165
                                    170
Leu Lys Leu Pro Glu Val Lys Arg Met Glu Cys Phe Asp Ile Ser His
            180
                                185
                                                    190
Thr Met Gly Glu Gln Thr Val Ala Ser Cys Val Val Phe Asp Ala Asn
                            200
                                                 205
Gly Pro Leu Arg Ala Glu Tyr Arg Arg Tyr Asn Ile Thr Gly Ile Thr
                        215
                                            220
Pro Gly Asp Asp Tyr Ala Ala Met Asn Gln Val Leu Arg Arg Tyr
                    230
                                        235
Gly Lys Ala Ile Glu Glu Ser Lys Ile Pro Asp Val Ile Leu Ile Asp
                245
                                    250
Gly Gly Lys Gly Gln Leu Gly Gln Ala Lys Ala Val Phe Glu Ser Leu
                                265
Asp Val Glu Trp Asp Lys Asn His Pro Leu Leu Gly Val Ala Lys
                            280
                                                285
Gly Ala Asp Arg Lys Ala Gly Leu Glu Thr Leu Phe Phe Glu Pro Glu
                        295
                                            300
```

Gly Glu Gly Phe Ser Leu Pro Pro Asp Ser Pro Ala Leu His Val Ile





310 315 Gln His Ile Arg Asp Glu Ser His Asp His Ala Ile Ser Gly His Arg 325 330 Lys Lys Arg Ala Lys Val Lys Asn Thr Ser Thr Leu Glu Thr Ile Glu 340 345 Gly Val Gly Pro Lys Arg Arg Gln Met Leu Leu Lys Tyr Met Gly Gly 365 360 Leu Gln Gly Leu Leu Asn Ala Ser Met Glu Glu Ile Ala Lys Val Pro 375 380 Gly Ile Ser Gln Gly Leu Ala Glu Lys Ile Tyr Tyr Ser Leu Lys His 390 395

<210> 5832 <211> 174 <212> PRT <213> Enterobacter cloacae

<400> 5832

Gln Arg Leu Cys Tyr Gln Arg Glu Thr Val Arg Arg Arg Gln Arg Arg Gly Gly Arg Pro Asp Ser Val Arg Leu Asn Gly Asp Cys Ala Pro Gly 25 Trp Leu Trp Gln Gln Arg Asp Arg Thr Pro Val Leu Ile His Phe Cys 40 Thr Lys Lys Gln Gly Met Arg Pro Val Phe Phe Arg Glu Asp Leu Met 55 Ser Thr Phe Ile Leu Leu Ala Ala Leu Ala Ser Gln Ile Thr Phe Ser 75 Thr Ser Gln Gln Ala Asn Met Thr Thr Ile Ile Pro Gln Val Thr Leu Ala Asp Ala Cys Glu Cys Gln Val Glu Val Leu Ser Val Arg Gln Gly 105 100 110 Gln Gly Gly Gln Ser Thr Ser Arg Gln Lys Asn Thr Leu Phe Ile Pro 120 125 Ala Asn Gln Pro Ile Asp Leu Thr Arg Ile Ser Leu Asn Ile Arg Ser 135 140 Gly Asp Ala Val Lys Ile Ile Val Thr Val Ser Asp Gly Lys Ser Leu 150 155 His Leu Ser Gln Gln Trp Asn Ala Pro Val Ser Ala Leu

<210> 5833 <211> 187 <212> PRT

<213> Enterobacter cloacae

165

<400> 5833

<210> 5834

<211> 159

<212> PRT

<213> Enterobacter cloacae

<400> 5834

 Ser Ile Arg
 Trp Gly
 Phe Thr Met Lys
 Leu Phe Lys
 Val Ala Val Ala Val Ile

 1
 5
 10
 15

 Ala Ala Ile Val Val Ser Gly
 Ser Ala Phe Ala Gly
 Ala Val Pro Gln 30

 Phe Gly Gly Gly Gly
 His Gly Gly Gly Trp Gly Gly Gly Asn Asn Gly Pro 35
 40

 Asp Ser Thr Leu Ser Ile Tyr Gln Tyr Gly Gly Gly Gly Asn Ser Ala Leu 50
 55

 Ala Leu Gln Thr Asp Ala Arg Asp Ser Glu Leu Thr Ile Thr Gln His 65
 70

 Gly Gly Gly Gly Asn Gly Ala Asp Val Gly Gly Gly Ser Asp Asp Ser Ser 90
 95

 Ile Asp Leu Leu Gln Lys Gly Phe Gly Asn Ser Ala Thr Ile Asp Gln 100
 100

 Trp Asn Ser Lys Asp Ser Val Ile Asn Val Lys Gln Phe Gly Gly Gly Gly Gly 115
 120

 Asn Gly Ala Ala Val Asp Gln Thr Ala Ser Gly Ser Thr Val Thr Val 130

His Gln Val Gly Phe Gly Asn Asn Ala Thr Ala His Gln Tyr 145 150 155

<210> 5835

<211> 297

<212> PRT

<213> Enterobacter cloacae

<400> 5835

```
120
                                                125
Gln Asn Met Ser Arg Asp Glu Ala Glu Ala Val Ile Ala His Glu Ile
                       135
                                           140
Ser His Ile Ala Asn Gly Asp Met Val Thr Met Thr Leu Ile Gln Gly
                   150
                                       155
Val Val Asn Thr Phe Val Ile Phe Ile Ser Arg Ile Leu Ala Gln Ile
                                    170
Ala Ala Gly Phe Met Gly Gly Asn Arg Asp Glu Gly Glu Glu Ser Asn
                                185
Gly Asn Pro Leu Ile Tyr Phe Ala Val Ser Met Val Leu Glu Leu Val
                            200
Phe Gly Ile Leu Ala Ser Ile Ile Thr Met Trp Phe Ser Arg His Arg
                        215
                                            220
Glu Phe His Ala Asp Ala Gly Ser Ala Lys Leu Val Gly Arg Glu Lys
                    230
                                        235
Met Ile Ala Ala Leu Gln Arg Leu Lys Thr Ser Tyr Glu Pro Gln Glu
                                    250
                245
Ala Asn Ser Met Met Ala Phe Cys Ile Asn Gly Lys Ser Lys Ser Leu
            260
                                265
                                                    270
Ser Glu Leu Phe Met Ser His Pro Pro Leu Asp Lys Arg Ile Glu Ala
                            280
Leu Arg Ser Gly Glu Tyr Leu Lys
    290
<210> 5836
<211> 536
<212> PRT
<213> Enterobacter cloacae
<400> 5836
Leu Asp Arg Ser Lys Ala Pro Trp Pro Lys Asp Glu Ala Glu Leu Asn
                                    10
Val Leu Trp Asp Gly Lys Val Lys Tyr Asp Glu Leu Ser Leu Lys Leu
                                25
Thr Gly Lys Asp Glu Lys Glu Ile Arg Glu Thr Leu Asn Arg Arg Tyr
        35
                            40
Lys Phe Asp Ile Arg Arg Leu Ala Gln Thr Asn Ser Glu Asp Val Phe
                        55
Ser Leu Ala Met Thr Ala Phe Ala His Glu Ile Asp Pro His Thr Asn
                    70
Tyr Leu Ser Pro Arg Asn Thr Glu Gln Phe Asn Thr Glu Met Ser Leu
                                    90
Ser Leu Glu Gly Ile Gly Ala Val Leu Gln Met Asp Asp Asp Tyr Thr
                                105
Val Ile Asn Ser Met Val Ala Gly Gly Pro Ala Ser Lys Ser Lys Ala
                            120
                                                125
Ile Ser Val Gly Asp Arg Ile Val Gly Val Gly Gln-Thr Gly Lys Ser
                        135
                                            140
Met Val Asp Val Ile Gly Trp Arg Leu Asp Asp Val Val Ala Leu Ile
                    150
                                        155
Lys Gly Pro Lys Gly Ser Lys Val Arg Leu Glu Ile Leu Pro Ala Gly
                                    170
                165
Lys Gly Thr Lys Thr Arg Ile Val Thr Leu Thr Arg Glu Arg Ile Arg
           180
                                185
                                                    190
Leu Glu Asp Arg Ala Val Lys Met Ser Val Lys Thr Val Gly Lys Glu
                            200
                                                205
Lys Val Gly Val Leu Asp Ile Pro Gly Phe Tyr Val Gly Leu Thr Asp
                       215
                                            220
Asp Val Lys Val Gln Leu Gln Lys Leu Glu Lys Gln Asn Val Ser Ser
                   230
                                       235
```

Val Ile Ile Asp Leu Arg Ser Asn Gly Gly Gly Ala Leu Thr Glu Ala

```
245
                                    250
Val Ser Leu Ser Gly Leu Phe Ile Pro Ser Gly Pro Val Val Gln Val
                               265
Arg Asp Asn Asn Gly Lys Val Arg Glu Asp Ala Asp Thr Asp Gly Val
                           280
                                                285
Val Tyr Tyr Lys Gly Pro Leu Val Val Leu Val Asp Arg Phe Ser Ala
                        295
                                            300
Ser Ala Ser Glu Ile Phe Ala Ala Ala Met Gln Asp Tyr Gly Arg Ala
                                        315
Leu Ile Val Gly Glu Pro Thr Phe Gly Lys Gly Thr Val Gln Gln Tyr
                                    330
Arg Ser Leu Asn Arg Ile Tyr Asp Gln Met Leu Arg Pro Glu Trp Pro
            340
                                345
Ala Leu Gly Ser Val Gln Tyr Thr Ile Gln Lys Phe Tyr Arg Val Asn
                            360
                                                365
Gly Gly Ser Thr Gln Arg Lys Gly Val Thr Pro Asp Ile Met Met Pro
    370
                        375
                                             380
Thr Gly Thr Glu Glu Thr Glu Thr Gly Glu Lys Phe Glu Asp Asn Ala
                    390
                                        395
Leu Pro Trp Asp Ser Ile Asp Ala Ala Thr Phe Val Lys Ser Gly Asp
                405
                                    410
Met Lys Gln Phe Gly Pro Glu Leu Leu Lys Asn His Asn Asp Arg Ile
                                425
                                                     430
Gly Lys Asp Pro Glu Phe Gln Tyr Ile Met Lys Asp Ile Ala Arg Phe
        435
                            440
                                                 445
Asn Ala Leu Lys Ala Lys Arg Asn Ile Val Ser Leu Asn Tyr Ala Gln
                        455
                                             460
Arg Glu Lys Glu Asn Asn Glu Asp Asp Ala Thr Arg Leu Ala Arg Ile
                    470
                                        475
Asn Asp Arg Phe Lys Arg Glu Gly Lys Pro Leu Leu Lys Lys Leu Asp
                485
                                    490
Asp Leu Pro Lys Asp Tyr Gln Glu Pro Asp Pro Tyr Leu Asp Glu Thr
            500
                                505
Val His Ile Ala Leu Asp Leu Pro Lys Leu Glu Lys Asn Lys Pro Ala
                            520
Val Gln Pro Ala Pro Thr Lys
    530
<210> 5837
<211> 309
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(309)
<400> 5837
Leu Thr Phe Ala Asp Ser Glu Phe Ser Thr Lys Arg Arg Gln Thr Arg
                                    10
Lys Glu Ile Phe Leu Ser Arg Met Glu Gln Ile Leu Pro Trp Gln Asn
            20
                                25
Met Thr Ala Val Ile Glu Pro Phe Tyr Pro Lys Ala Gly Asn Gly Arg
                            40
Arg Pro Tyr Pro Leu Glu Thr Met Leu Arg Ile His Cys Met Gln His
                        55
                                            60
Trp Tyr Asn Leu Ser Asp Gly Ala Met Glu Asp Ala Leu Tyr Glu Ile
                    70
                                        75
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Ala Ser Met Arg Leu Phe Ala Arg Leu Ser Leu Asp Ser Ala Leu Pro

Asp Arg Thr Thr Ile Met Asn Phe Arg His Leu Leu Glu Gln His Gln

```
100
                                105
                                                   110
Leu Ala Arg Gln Leu Phe Lys Thr Ile Asn Arg Trp Leu Ala Glu Ala
                           120
                                               125
Gly Val Met Met Thr Gln Gly Thr Leu Val Asp Ala Thr Ile Ile Glu
                       135
                                           140
Ala Pro Ser Ser Lys Asn Lys Glu Gln Gln Arg Asp Pro Glu Met
                                        155
                    150
His Gln Thr Lys Lys Gly Asn Gln Trp His Phe Gly Met Lys Ala His
             · 165
                                    170
Ile Gly Val Asp Ala Lys Ser Gly Leu Thr His Ser Leu Val Thr Thr
                                185
Ala Ala Asn Glu His Asp Leu Asn Gln Leu Gly Asn Leu Leu His Gly
                            200
Glu Glu Gln Phe Val Ser Ala Asp Ala Gly Tyr Gln Gly Ala Pro Gln
                        215
                                            220
Arg Glu Glu Leu Ala Glu Val Asp Val Asp Trp Leu Ile Ala Glu Arg
                                        235
                    230
Pro Gly Lys Val Lys Thr Leu Lys Gln His Pro Arg Lys Asn Lys Thr
                245
                                    250
Ala Ile Asn Ile Glu Tyr Met Lys Ala Ser Ile Arg Ala Lys Val Glu
                                265
            260
His Pro Phe Arg Ile Ile Lys Arg Gln Phe Gly Phe Val Lys Ala Arg
                            280
Tyr Lys Gly Leu Leu Gln His Asp Asn Leu Phe Thr Ser Arg Gly Gly
   290
                        295
                                            300
Ser Ala Ser Gly Xaa
305
<210> 5838
<211> 93
<212> PRT
<213> Enterobacter cloacae
<400> 5838
Ser Ala Ser Trp Arg Gly Ala Ile Cys Leu Ser Arg Cys Arg Leu Pro
Arg Ser Ala Thr Ala Arg Gly Ala Gly Arg Gly Gly Cys Gly Leu Ala
Asp Arg Arg Ala Ser Arg Gln Gly Lys Asn Leu Glu Ala Ala Ser Ala
Gln Glu Gln Asn Gly His Gln His Arg Ile His Glu Ser Gln His Pro
Cys Gln Gly Gly Ala Pro Val Ser His His Gln Ala Ala Val Arg Leu
Arg Glu Ser Gln Ile Gln Gly Ala Ala Ala Thr Arg
<210> 5839
<211> 100
<212> PRT
<213> Enterobacter cloacae
<400> 5839
Ala Val Gly Gln Ala Thr Leu Gly Ile Asp Thr Asn Val Gly Leu His
                                    10
Ala Lys Val Pro Leu Ile Ala Phe Leu Gly Leu Met His Leu Arg Ile
                                25
Ala Leu Leu Phe Val Leu Ala Arg Ala Gly Cys Leu Asn Asp Gly
                            40
Gly Ile His Gln Ser Ala Leu Gly His His Asp Ala Cys Phe Gly Gln
                        55
```

Pro Ala Ile Asp Gly Leu Glu Gln Leu Thr Gly Gln Leu Met Leu Leu Glu Gln Val Ala Glu Ile His Asp Gly Gly Ala Ile Arg Gln Gly Ala Ile Gln Gly 100 <210> 5840 <211> 116 <212> PRT <213> Enterobacter cloacae <400> 5840 Ser Gly Lys Gln Ala His Gly Gly Asp Phe Val Gln Gly Ile Phe His 10 Gly Thr Val Ala Gln Val Val Pro Met Leu His Ala Val Asn Thr Gln His Gly Leu Gln Arg Ile Gly Pro Ser Ala Ile Ala Arg Leu Gly Ile Lys Arg Leu Asp Asp Ser Gly His Ile Leu Pro Trp Gln Asn Leu Leu His Ala Gly Glu Glu Asn Leu Phe Ser Gly Leu Thr Ala Leu Ser Ala Glu Phe Thr Ile Gly Glu Gly Glu Leu Met Ala His Asp Val Pro Leu Gly Cys Ala Pro Asp Glu Tyr Asp Asp Leu Ile Ser Gly Thr Cys Ser 105 His Leu Pro 115 <210> 5841 <211> 520 <212> PRT <213> Enterobacter cloacae <400> 5841 Val Leu Pro Ala Ala Cys Gly Glu Asn Asp Ser Arg Arg Ala Glu Met Leu Gln Gln Ala Asn Ala Leu Asp Glu Arg Glu Ser Phe Ser Ser Leu 25 Arg Arg Leu Ala Trp Gln Asn Gly His Tyr Phe Thr Leu Arg Thr Thr 40 45 Phe Asn Gln Pro Gly His Leu Ala Thr Val Val Ala Phe Asp Leu Pro 55 Ile Asn Asp Leu Ile Pro Pro Asp Met Pro Leu Asp Ser Phe Arg Leu 75 70 Glu Pro Asp Asn Ser Thr Gln Asn Met Arg Ser Pro Ser Asp Lys Glu 85 90 Gly Ala Asp Ser Val Ala Ile Ser Phe Asn Gly Ser Lys Ile Glu Ile 100 105 110 Ala Ser Ser Leu Asn Ser Thr Gly Met Arg Leu Val Trp Gln Val Pro 120 125 Phe Gly Thr Leu Met Leu Asp Thr Leu Gln Asn Ile Leu Leu Pro Leu 135 Leu Leu Asn Ile Gly Leu Leu Ala Leu Ala Leu Phe Gly Tyr Ser Thr 150 155 Phe Arg Phe Gln Ser Gly Arg Gln Ser Asp Ser Thr Ser Val Ser Ala 170 165 Gly Thr Ser Asn Glu Leu Arg Ile Leu Arg Ala Leu Asn Glu Glu Ile 185 Ile Ser Val Leu Pro Leu Gly Val Leu Val His Asp Gln Glu Ala Asn

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200
Arg Thr Val Met Ser Asn Lys Ile Ala Asp His Leu Leu Pro His Leu
                        215
                                            220
Asn Leu Gln Asn Ile Thr Ala Met Ala Asp Gln His Gln Gly Val Ile
                    230
                                        235
Gln Ala Thr Ile Asn Asn Glu Leu Tyr Glu Ile Arg Gln Phe Arg Ser
                245
                                    250
Gln Val Ala Ser Arg Thr Gln Ile Phe Ile Ile Arg Asp Gln Asp Arg
            260
                                265
Glu Val Leu Val Asn Lys Lys Leu Lys Gln Ala Gln Arg Leu Tyr Glu
                        · 280
Lys Asn Gln His Gly Arg Ala Ala Phe Met Gln Asn Ile Gly Asp Ala
                        295
                                             300
Phe Lys Gln Pro Leu Lys Ser Leu Ala Thr Gln Ile Ala Asp Leu Ser
                    310
                                        315
Thr Pro Glu Ser Arg Gln Leu Ser Ser Gln Ala Asp Ser Leu Val Arg
                325
                                    330
Leu Val Asp Glu Ile Gln Leu Ala Asn Met Leu Glu Asn Asp Ile Trp
                                345
Lys Gly Thr Pro Thr Leu Phe Ser Ile Gln Asp Leu Ile Asp Glu Val
                            360
                                                365
Val Pro Glu Val Leu Pro Val Ile Lys Arg Lys Gly Leu Gln Leu Leu
                        375
                                            380
Ile Asn Asn His Leu Pro Ala Asn Asp Glu Arg His Gly Asp Arg Asp
                    390
                                        395
Ala Leu Arg Arg Ile Leu Met Met Leu Ile Gln Tyr Ala Val Thr Thr
                                    410
                405
Thr Gln Ile Gly Lys Ile Thr Leu Glu Val Ser Thr Asp Glu Ser Thr
            420
                                425
Asp Asp Arg Leu Thr Phe Arg Ile Leu Asp Thr Gly Glu Gly Val Thr
       435
                            440
Val Ser Glu Ile Asp Asn Leu His Phe Pro Phe Leu Asn Asp Thr Gln
                        455
                                            460
Arg Asp His Tyr Gly Lys Ala Asn Ala Leu Thr Phe Trp Leu Cys Asp
                                        475
                    470
Gln Leu Ala Arg Lys Leu Gly Gly His Leu Asn Ile Lys Ala Arg Glu
               485
                                    490
Ser Leu Gly Thr Arg Tyr Ser Leu His Val Lys Met Val Ser Ser Pro
           500
                                505
Arg Gly Trp Ser Ile Arg Pro
       515
<210> 5842
<211> 138
<212> PRT
<213> Enterobacter cloacae
<400> 5842
Ser Val Arg Ser Asn Ser Met Arg His Tyr Glu Ile Val Phe Met Val
                                    10
His Pro Asp Gln Ser Glu Gln Val Pro Gly Met Ile Glu Arg Tyr Ser
                                25
Ala Ala Ile Thr Gly Ala Glu Gly Thr Ile His Arg Leu Glu Asp Trp
                            40
Gly Arg Arg Gln Leu Ala Tyr Pro Ile Asn Lys Leu His Lys Ala His
                        55
Tyr Val Leu Met Asn Val Glu Ala Pro Gln Glu Val Ile Asp Glu Leu
                    70
                                        75
Glu Thr Thr Phe Arg Phe Asn Asp Ala Val Ile Arg Ser Met Val Met
                                    90
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Arg Thr Lys His Ala Val Thr Glu Ala Ser Pro Met Val Lys Ala Lys

100 105 Asp Glu Arg Arg Glu Arg Asp Asp Phe Ala Asn Glu Thr Ala Asp 120 Asp Ser Asp Ala Gly Asp Ser Glu Glu <210> 5843 <211> 72 <212> PRT <213> Enterobacter cloacae <400> 5843 Phe Leu Met Thr Asn Arg Leu Val Leu Ser Gly Thr Val Cys Arg Thr Pro Leu Arg Lys Val Ser Pro Ser Gly Ile Pro His Cys Gln Phe Val 20 25 Leu Glu His Arg Ser Val Gln Glu Glu Ala Gly Phe His Arg Gln Ala 40 Trp Cys Gln Met Pro Val Ile Ile Ser Gly His Glu Asn Gln Ala Ile 50 Thr His Ser Phe Asn Gly Arg 70 <210> 5844 <211> 133 <212> PRT <213> Enterobacter cloacae <400> 5844 Thr Thr Ser Ser Glu Met Val Thr His Pro Asn Pro Gly Ser Asp Tyr 10 Thr Leu Ile Arg Asn Pro Glu Gln Arg Arg Arg Ala Phe Pro Arg Ile 25 Thr Ala Arg Ser Arg Gly Ala His Ile Met Lys Arg Ile Ala Ile Ala Ile Leu Ala Ala Leu Leu Ser Ala Asn Ala Met Ala Ala Ile Arg 55 Ile Asp Ser Gln Gln Ala Arg Asn Met Asp Asp Val Gln Ser Leu Gly 75 Val Ile Tyr Ile Asn His Asn Phe Ala Thr Glu Ser Glu Ala Asp Gln Ala Leu Asn Glu Glu Thr Asp Ala His Gly Ala Lys Tyr Tyr His Val 105 110 Met Leu Thr Arg Glu Pro Gly Ser Asn Gly Asn Met His Ala Ser Ala 120 115 Asp Ile Tyr Gln 130 <210> 5845 <211> 188 <212> PRT <213> Enterobacter cloacae <400> 5845 Asn Arg Ala Phe Ala Glu Cys Lys His Asp Gly Arg Phe Ala Asp Asp Ala Gly Glu Lys Met Ile Pro Val Leu Ala Ile Ser Ala Trp Ser Gly Thr Gly Lys Thr Ser Leu Leu Lys Lys Leu Ile Pro Ala Leu Cys Ala

Lys Gly Ile Arg Pro Gly Leu Ile Lys His Thr His His Asn Met Asp

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55
Val Asp Lys Pro Gly Lys Asp Ser Tyr Glu Leu Arg Lys Ala Gly Ala
                    70
                                        75
Ala Gln Thr Met Val Ala Ser Asn Gln Arg Trp Ala Leu Met Thr Glu
                85
                                    90
Thr Pro Asp Glu Ala Pro Leu Asp Leu Ala Tyr Leu Val Ser Arg Met
                                105
            100
Asp His Ser Thr Leu Asp Leu Val Leu Val Glu Gly Phe Lys His Glu
                            120
Ala Val Ala Lys Ile Leu Leu Phe Arg Ser Asp Ala Gly His Asp Val
                        135
                                            140
Ser Glu Leu Thr Leu Asp Glu His Val Ile Ala Val Ala Ser Asp Val
                    150
                                        155
Ala Leu Thr Leu Lys Val Pro Val Leu Asp Leu Asn Asn Val Glu Gly
                                    170
Ile Ala Ala Phe Ile Ser Ala Trp Cys Ala Val
<210> 5846
<211> 243
<212> PRT
<213> Enterobacter cloacae
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<400> 5846 Phe Ile Arg Lys Gly Gln Gly Val Thr Pro Thr Ala Tyr Ala Thr Ile 10 Leu His Glu Tyr Ile Ser Gln Gly Leu Glu Ser Ile Leu Gly Ala Leu 20 25 Asp Leu Thr Gly Ser Tyr Asp Lys Gln Arg Thr Ile Thr Ile Gly Thr 40 Ser Pro Ser Val Gly Val Leu Val Met Pro Ala Ile Tyr Gln Ala Val 55 60 Lys Gln His Ala Pro Gln Leu Leu Ile Arg Asn Val Pro Val Asn Asp 70 75 Pro Glu Thr Gln Leu Ala Gln Phe Gln Thr Asp Leu Ile Ile Asp Ser 8.5 90 Asn Ser Phe Ala Ala Arg Ala Leu Gly His Asn Val Leu Tyr Thr Asp 105 110 Ser Leu Ala Leu Val Cys Arg Gln Asn His Pro Val Leu Ser Ala Pro 120 125 Leu Thr Pro Glu Asn Leu Arg His Tyr Glu His Ala Thr Phe Met Ser 135 140 Glu Gly Gln Gly Pro Asp Pro Leu Arg Gln Arg Ile Asp Glu Leu Phe 150 155 Pro Asp Arg Leu Ile Ser Phe Ser Ser Tyr Asn Met Phe Thr Leu Ala 165 170 Ala Leu Ile Gly Ser Ser Asp Leu Leu Cys Ile Met Pro Val Arg Leu 180 185 190 Phe Ala Leu Leu Gln Lys Cys Trp Pro Leu Glu Ser Ile Pro Leu Ser 200 205 Gln Leu Thr Thr Glu Ser Val Glu Ile Ser Leu His Tyr Asn Lys Leu 215 220 Ser Leu Arg Asp Pro Val Leu Glu Asn Val Ile Asn Val Ile Arg Gln Ala Phe

<sup>&</sup>lt;210> 5847

<sup>&</sup>lt;211> 337

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 5847 Ile Glu Thr Leu Ser Phe Asp Ile Arg Asn Trp Asn Thr His Ala Met Ser Lys Pro Ile Val Met Glu Arg Gly Val Lys Tyr Arg Asp Ala Asp 25 Lys Met Ala Leu Ile Pro Val Lys Asn Val Ala Thr Glu Arg Glu Ala 40 Leu Leu Arg Lys Pro Glu Trp Met Lys Ile Lys Leu Pro Ala Asp Ser 55 Ser Arg Ile Gln Gly Ile Lys Ala Ala Met Arg Lys Asn Gly Leu His 70 75 Ser Val Cys Glu Glu Ala Ser Cys Pro Asn Leu Ala Glu Cys Phe Asn 85 90 His Gly Thr Ala Thr Phe Met Ile Leu Gly Ala Ile Cys Thr Arg Arg 100 105 Cys Pro Phe Cys Asp Val Ala His Gly Arg Pro Val Ala Pro Asp Ala 120 Asn Glu Pro Gln Lys Leu Ala Gln Thr Ile Ala Asp Met Ala Leu Arg 135 140 Tyr Val Val Ile Thr Ser Val Asp Arg Asp Leu Arg Asp Gly Gly 150 155 Ala Gln His Phe Ala Asp Cys Ile Thr Ala Ile Arg Glu Lys Ser Pro 170 Asn Ile Lys Ile Glu Thr Leu Val Pro Asp Phe Arg Gly Arg Met Asp 180 185 Arg Ala Leu Asp Ile Leu Thr Ala Thr Pro Pro Asp Val Phe Asn His 200 Asn Leu Glu Asn Val Pro Arg Ile Tyr Arg Gln Val Arg Pro Gly Ala 215 Asp Tyr Asn Trp Ser Leu Lys Leu Leu Glu Arg Phe Lys Glu Ala His 230 235 Pro His Ile Pro Thr Lys Ser Gly Leu Met Val Gly Leu Gly Glu Thr 250 Asn Ala Glu Ile Ile Glu Val Met Arg Asp Leu Arg Arg His Gly Val 265 Thr Met Leu Thr Leu Gly Gln Tyr Leu Gln Pro Ser Arg His His Leu 280 Pro Val Gln Arg Tyr Val Ser Pro Asp Glu Phe Asp Glu Met Lys Ala 295 Glu Ala Met Ala Met Gly Phe Thr His Ala Ala Cys Gly Pro Phe Val 310 315 Arg Ser Ser Tyr His Ala Asp Met Gln Ala Lys Gly Glu Glu Val Lys 330

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<210> 5848
<211> 187
<212> PRT
<213> Enterobacter cloacae
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<400> 5848

 Arg Cys
 Ile
 Cys
 Leu
 Val
 Lys
 Ile
 Phe
 Ser
 Ala
 Ser
 Glu
 Lys
 Asn

 1
 5
 10
 10
 15
 15

 Met
 Ser
 Asp
 Tyr
 Ile
 Pro
 Lys
 Lys
 Arg
 Gly
 Leu
 Leu
 Ile
 Leu
 Leu</

Ala Asp Phe Tyr Met Ile Asp His Ser Asp Lys Ser Ile Lys Thr Gly 70 75 Glu Leu Ile Pro Phe Asn Met Pro Lys Ser Val Arg Phe Ile Pro Gln 85 Asn Glu Arg Val Ile Lys Ile Val Ala Gly Val Gly Asp Lys Leu 100 105 Lys Val Thr Met Asp Gly Val Tyr Asn Gly Asp Lys Phe Phe Glu Thr 120 125 Asn Ala Arg Arg Ile Ser Lys Lys Tyr Asn Ile Pro Ser Ile Leu Ile 140 135 Glu Lys Glu Leu Ile Ile Pro Glu Gly Glu Val Phe Leu Ile Gly Gln 150 155 Thr Asp His Ser Trp Asp Ser Arg Phe Trp Gly Thr Val Lys Leu Asn 165 170 Ser Val Ile Gly Lys Thr Tyr Ala Ile Phe 180

<210> 5849

<211> 271

<212> PRT

<213> Enterobacter cloacae

<400> 5849 Cys Ala Val Leu Ser Asn Thr Asn Ala Ser Thr Glu Tyr Gln His Asp 10 Ala Asp Leu Ile Ala Gln Gln Ala Lys Gly Leu Gly Ala Gln Ala Lys 25 Gly Ala Gln Gln Pro Asp Gly Ala Leu Ser Leu Asp Ala Thr Leu Lys Ser Pro Asp Val Gln Lys Tyr Ile Ala Gln Ala Glu Ala Leu Gln Lys 55 Asn Gln Asp Leu Ser Lys Gln Ile Asn Arg Gly Tyr Val Pro Gly Met 70 75 Asn Ala Asp Ser Val Gln Ala Val Ile Asp His Thr Gln Ala Ile Arg 8.5 90 Ala Gln Ser Asn Asn Ser Glu Ala Val Asn Asp Ile Ile Arg Arg Arg 105 100 Asp Glu Ile Gln Glu Asn Ala Ser Leu Asn Glu Ala Ala Leu Lys Ala 120 Val Glu Asn Lys Pro Glu Val Met Arg Gly Gln Ala Lys Asn Ile Glu 135 140 Lys Leu Phe Gly Ser Ser Gly Ile Thr Ala Ala Asp Phe Glu Arg Lys 150 155 Met Asp Ser Thr Arg Glu Glu Ala Leu Ser Thr Glu Asn Gly Ile Thr 170 165 Ile Phe Ala Ser Phe Ser Leu Pro Asp Tyr Val Leu Glu Asp Leu Leu 180 185 190 Arg Thr Ala Ser Glu His Lys Ala Arg Val Val Phe Asn Gly Leu Lys 200 Lys Gly Thr Thr Arg Leu Pro Glu Thr Gln Ala Ala Ile Asn Gln Met 215 220 Ile Val Lys Gly Lys Phe Glu Ser Pro Leu Ile Thr Ile Asp Pro Asp 235 Ser Phe Ser Gln Tyr Gln Val Thr Gln Val Pro Thr Ile Ile Ser Arg 245 250 Glu Gln Ala Arg Phe Ala Lys Met Gly Lys Leu Leu Gln Arg

<sup>&</sup>lt;210> 5850

<sup>&</sup>lt;211> 247

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

<400> 5850 Met Asn Leu Arg Thr Lys Gly Phe Leu Leu Ile Ile Lys Asp Glu Gly Asp Thr Lys Glu Phe Thr Ile Glu Asn Pro Gly Lys Tyr Thr Leu Met 25 Val Val Phe Lys Asp Asn Arg Asn Asn Glu Gln Arg Ile Glu Asn Thr 40 Phe Val Val Asp Glu Gln Thr Pro Met Asn Val Glu Met Thr Pro Lys 55 Phe Ser Asn Lys Tyr Met Arg Ala Pro Leu Asp Val Thr Leu Arg Ser 7.5 70 Asn Ile Lys Ile Ser His Ser Ala Asp Ser Ile Asp Thr Val Thr Tyr 90 Lys Val Asn Gly Glu Val Ile Pro Ser Gly Lys Asn Tyr Trp Ala Gln 105 Leu Ile Ser Gly Leu Lys Glu Lys Lys Tyr Glu Ile Thr Ile Asp Val 120 Val Ser Lys Leu Gly Gln Arg Gly Ser Ala Ser Val Glu Phe Asp Val 135 Val Lys Asn Ala Val Pro Asn Cys Thr Leu Ser Tyr Thr Glu Thr Asn 150 Leu Ser Trp Ser Phe Thr Asn Lys Cys Asp Asp Thr Asp Gly Lys Met 165 170 Val Arg Tyr Glu Trp Phe Ile Asn Gly Glu Leu Arg Asn Val Phe Gly 180 185 Ser Thr Ala Thr Leu Ser Lys Asn Leu Asn Arg Gly Lys Gln Asp Ile 200 Lys Val Ile Ala Tyr Asp Asp Ser Gly Asp Phe Ala Thr Gln His Val 215 Thr Val Phe Gly Pro Ala Glu Glu Ala Ser Lys Ser Glu Asn Thr Val 230 Ser Ile Pro Ser Ser Glu

<210> 5851

<211> 139

<212> PRT

<213> Enterobacter cloacae

<400> 5851

Val Leu Asp Ala Gln Ile Ser Val Cys Ala Cys Ser Ser Leu Ile Arg Cys Ile Asn Thr Thr Pro His Met Arg Gly Phe Phe Val Pro Asp Ser 25 Arg Val Ser Cys Gly Cys Arg Val Ala Val Ala His Tyr Pro Ala Tyr 40 45 Arg Ile Gln Tyr Ala Arg Ile Glu Pro Trp Ser Lys Leu Phe Ile Arg Pro Arg Met Gly Glu Pro Trp Gly Ile Val Leu Leu Asp Ser Ala Lys Glu Ser Gly Ser Asp Gly Gly Gly Arg Ile Thr Gln Arg Phe Ala Leu Arg Pro Ser Gly Arg Cys Met Arg Gln Arg Phe Leu Asp Thr Leu 105 Glu Ser Asn Leu Gly Arg Ser Phe Ser Ser Phe Pro Ala Leu Lys Asn 120 125

His Gly Ala Leu Cys Phe Glu Arg Val Leu

130

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<210> 5852
<211> 112
<212> PRT
<213> Enterobacter cloacae
<400> 5852
Phe Ala Val Leu Ile Gln Pro Arg Ile Cys Gly Val Phe Leu Phe Pro
                                    10
Ile Pro Gly Tyr Arg Ala Asp Ala Gly Trp Arg Leu Arg Ile Thr Arg
            20
                                25
His Thr Glu Phe Asn Met Leu Glu Ser Asn Leu Gly Arg Ser Phe Leu
                            40
Ser Val Pro Ala Trp Glu Asn His Gly Ala Leu Cys Phe Trp Ile Val
                        55
Leu Lys Asn Pro Glu Val Met Val Val Gly Glu Gly Leu Leu Ser Ala
                    70
Ser Arg Phe Ala Leu Arg Val Val Ala Cys Gly Asn Ala Phe Ser Ile
                                    90
Arg Ser Asn Arg Thr Leu Val Glu Ala Ser His His Ser Pro His
            100
                                105
<210> 5853
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 5853
Phe Glu Glu Ala Glu Asp His Ala Gly Asn Ser Thr Glu Ala Lys Thr
                                    10
Ile Arg Asp Asp Arg Lys Tyr Thr Lys Arg Glu Arg Glu Leu Pro Ala
Asn Arg Leu Asn Arg Lys Arg Ala Arg Ser Gln Ala Lys Lys Asp Gly
Asn Ala Lys Glu Gln Gln Gln Asp Gln Ile Glu Thr Lys Ile Glu Gln
Gln Ala Glu Glu Ile Glu Asn Ile Asn Ser Asp Gln Glu Lys Gln Ser
                                        75
Arg Glu Ile Lys Glu Gly His Gln Gly Glu Glu Asn Asp Glu Ala Lys
Thr Thr Gln Ala Glu Glu Glu Ile Gly Arg Lys Glu Arg Lys Arg
                                105
Gln Lys Glu Thr Gln Arg Ala Lys Asn Ile Gln Glu Arg Lys Ala Arg
                            120
                                                 125
Gln Pro Gly Gly Gln Gln Gln Ala Arg Glu Ile Lys Arg Glu Ile
                        135
                                            140
Glu Ser Gln Gln Pro His Asn Glu Ser Leu Phe Gln Lys Val Asn Tyr
                    150
                                        155
Leu Ser Tyr Ile Asn Arg Arg Gly Arg Arg Thr Arg Ala
<210> 5854
<211> 270
<212> PRT
<213> Enterobacter cloacae
<400> 5854
Pro Phe Cys Arg Asp Thr Val Met Gln Ala Glu Ile Leu Leu Thr Leu
Arg Leu Gln Gln Lys Leu Phe Ala Asp Pro Arg Arg Ile Ala Leu Leu
Lys Gln Ile Glu Gln Thr Gly Ser Ile Ser Gln Gly Ala Lys Asn Ala
```

```
40
Gly Ile Ser Tyr Lys Ser Ala Trp Asp Ala Ile Asn Asp Met Asn Thr
                        55
                                            60
Leu Ser Glu His Thr Leu Val Glu Arg Ala Thr Gly Gly Lys Gly Gly
                    70
                                        75
Gly Gly Ala Val Leu Thr Arg Tyr Gly Gln Arg Leu Ile Gln Leu Tyr
                85
                                    90
Asp Leu Leu Ala Gln Ile Gln Gln Lys Ala Phe Asp Val Leu Ser Asp
                                105
Asp Asp Asn Leu Pro Leu Asp Ser Leu Leu Gly Ala Ile Ser Arg Phe
                            120
Ser Leu Gln Thr Ser Ala Arg Asn Gln Trp Phe Gly Thr Val Thr Gly
                        135
                                            140
Arg Asp His Ser Gln Val Gln Glu His Ile Glu Ile Leu Leu Ala Asp
                    150
                                        155
Gly Thr Thr Arg Leu Lys Ala Ala Ile Thr Ala Gln Ser Gly Gln Arg
                165
                                    170
Leu Gly Leu Asn Glu Gly Gln Glu Val Leu Val Leu Lys Ala Pro
                                185
Trp Ile Ser Ile Thr Leu Asn Pro Glu Gln Ala Ala Glu Ala Asp Asn
                            200
Gln Leu Arg Gly Arg Ile Ser His Ile Glu Arg Gly Ala Glu Gln Cys
                                            220
                        215
Glu Val Leu Met Thr Leu Pro Asp Gly Gln Leu Leu Cys Ala Thr Val
                    230
                                        235
Pro Val Asn Asp Ala Thr Glu Leu Asp Glu Gly Ala Val Val Thr Ala
                245
                                    250
Tyr Phe Asn Ala Asp Arg Val Ile Ile Ala Thr Leu Cys
                                265
<210> 5855
<211> 388
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(329)
<400> 5855
His Met Ser Ser Leu His Ile Ser Gln Gly Thr Phe Arg Leu Ser Asp
Thr Arg Thr Leu Ser Leu Pro Glu Leu Thr Leu Arg Ala Gly Glu Ser
Trp Ala Phe Val Gly Ser Asn Gly Ser Gly Lys Ser Ala Leu Ala Arg
                            40
Ala Leu Ala Gly Glu Ile Thr Gln Leu Lys Gly Glu Arg Arg Cys Thr
                        55
Phe Thr Arg Leu Thr Arg Leu Ser Phe Glu Gln Leu Gln Lys Leu Val
                                        75
Ser Asp Glu Trp Gln Arg Asn Asn Thr Asp Leu Leu Ser Pro Gly Glu
                85
                                    90
Glu Asp Thr Gly Arg Thr Thr Ala Glu Ile Ile Gln Asp Glu Ile Lys
            100
                                105
Asp Pro Ala Arg Cys Gln Gln Leu Ala Glu Gln Phe Gly Ile Thr Ala
       115
                           120
```

Leu Leu Asn Arg Arg Phe Lys Tyr Leu Ser Thr Gly Glu Thr Arg Lys

Thr Leu Leu Cys Gln Ala Leu Met Ser Glu Pro Glu Leu Leu Ile Leu

Asp Glu Pro Phe Asp Gly Leu Asp Val Gln Ser Arg Ala Gln Leu Ala

155

135

```
170
                165
Ala Leu Leu Ala Ser Leu Asn Gln Gln Gly Tyr Thr Leu Val Leu Val
           180
                               185
Leu Asn Arg Phe Asp Glu Ile Pro Asp Phe Val His Tyr Ala Gly Val
       195
                           200
                                                205
Leu Ala Asp Cys Ser Leu Thr Glu Ile Gly Glu Lys Ala Val Leu Leu
                        215
                                            220
Arg Gln Ala Leu Ile Ala Gln Leu Ala His Ser Glu Lys Leu Asp Gly
                    230
                                        235
Ile Ala Leu Pro Glu Pro Asp Ala Pro Ser Ala Arg His Gly Leu Glu
                                    250
Pro Asp Gln Pro Arg Ile Val Leu Arg Asp Gly Val Val Ala Tyr Asp
            260
                                265
Asp Arg Pro Ile Leu Asn His Leu Ser Trp Thr Val Asn Pro Gly Glu
                            280
His Trp Gln Ile Val Gly Pro Asn Gly Ala Gly Lys Ser Thr Leu Leu
                        295
                                            300
Ser Leu Ile Thr Gly Asp His Pro Gln Gly Tyr Ser Asn Asp Leu Thr
                    310
                                        315
Leu Phe Ala Arg Arg Gly His Xaa Asp Thr Ile Trp Asp Ile Lys
                                    330
                325
Lys His Phe Arg Tyr Val Ser Ser Thr Leu His Leu Gly Leu Pro Gly
            340
                                345
Glu Gln His Arg Cys Lys Thr Leu Ser Ser Leu Ala Ser Phe Asp Ser
                            360
Ile Gly Tyr Leu Ser Arg Arg Phe Pro Thr Asn His His Gln Leu Ala
    370
                        375
                                            380
Pro Thr Leu Gly
385
<210> 5856
<211> 264
<212> PRT
<213> Enterobacter cloacae
<400> 5856
Gly Lys Thr Met Ile Thr Leu Cys Lys Thr Cys Gly Thr Ala Tyr Asp
Glu Gln Pro Lys Asn Cys Pro Ile Cys Asp Asp Glu Arg Gln Tyr Val
            20
Pro Val Thr Gly Gln Ala Trp Thr Asp Phe Asp Ser Leu Thr Thr
His Thr Asn Lys Trp Gln Gln Leu Glu Pro Gln Leu Phe Ser Ile Lys
Thr Val Pro Ala Phe Ala Ile Asn Gln Arg Ala Leu Leu Leu Arg Thr
Pro Gln Gly Asn Val Leu Trp Asp Cys Ile Ala Asn Leu Asp Pro Ala
                85
Thr Arg Ala Leu Val Asp Ala Leu Gly Gly Ile Ser Ala Ile Ala Ile
                                105
                                                    110
Ser His Pro His Tyr Tyr Thr Thr Met Gln Glu Trp Ala Ala Ala Phe
                            120
                                                125
Asn Ala Pro Ile Tyr Leu His Ala Ser Asp Arg Gln Trp Val Met Arg
                        135
                                            140
Asp Ser Pro Ala Ile Arg Phe Trp Glu Glu Asp Ala Leu Glu Ile Met
                    150
                                        155
Pro Leu Val Thr Leu Leu Arg Leu Gly Gly His Phe Ala Gly Gly Thr
               165
                                    170
Val Leu His Trp Gln Ser Gly Asp Gly Val Leu Leu Ala Gly Asp Ile
                               185
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Leu Gln Val Thr Pro Gly Lys Asp Ala Val Ser Phe Met Trp Ser Tyr

```
200
                                                 205
Pro Asn Met Leu Pro Leu Pro Ala Arg Thr Val Glu Ser Leu Ile Gly
                       215
                                            220
Arg Leu Thr Gly Lys Thr Tyr Gln Arg Leu Tyr Gly Ala Phe Glu Gly
                   230
                                        235
Gln Asn Ile Pro Val Asn Ala Asp Glu Ile Val Gln Arg Ser Gly Gln
               245
Lys Tyr Ile Ala Cys Leu Arg
            260
<210> 5857
<211> 277
<212> PRT
<213> Enterobacter cloacae
<400> 5857
Ala Pro Pro Ile Arg Gly Gly Ser Arg Leu Phe Gln Ala Arg Val Lys
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Leu Leu Ile Pro Thr Pro Phe Gly Ala Asp Thr Val Leu Ala Asp Thr
                                25
Gln Phe Gly Ser Leu Thr Arg Pro Val Gln Asp Glu Ala Met Ala Asn
Trp Gln Glu Glu Gly Trp Lys Glu Ala Pro Leu Pro Val Trp Asn Leu
                        55
Leu Asn Tyr Ala Val Leu Gln Glu Arg Arg Asn Gly Met Ala Leu Phe
                    70
                                        75
Thr Glu Gly Leu Arg Glu Phe Glu Val Thr Gly Glu Arg Gln Lys Thr
                85
                                    90
Phe Ala Leu Thr Leu Leu Arg Gly Val Gly Val Leu Gly Lys Glu Asp
            100
                                105
Leu Leu Arg Pro Gly Arg Pro Ser Gly Ile Lys Met Pro Val Pro
                            120
Asp Ser Gln Met Arg Gly Gln Leu Thr Cys Arg Phe Ser Leu Phe Ser
                        135
                                            140
Phe Asn Gly Thr Pro Val Ser Ala Gly Val Ala Gln Gln Ala Lys Ser
                    150
Trp Leu Thr Pro Val His Cys Tyr Asn Lys Ile Pro Trp Asp Ala Met
                                    170
Lys Leu Asn Arg Ala Ser Phe Thr Thr Pro Cys Ser Tyr Ser Leu Leu
                                185
                                                    190
Thr Leu Ala Pro Asn Gly Cys Val Leu Ser Ala Leu Lys Lys Ala Glu
                            200
Asp Arg Asp Glu Met Ile Leu Arg Leu Tyr Asn Pro Ser Glu Thr Arg
                        215
                                            220
Ser Cys Asp Val Ala Leu Ser Val Asn Arg Glu Ile Gln Ala Cys Cys
                    230
                                        235
Glu Thr Asp Met Asn Glu Val Tyr Lys Ala Gln Gly Glu Glu Gly Ser
               245
                                    250
Ala Ile Thr Gly Ser Phe Arg Pro Gly Gln Ser Arg Thr Phe Ser Ile
            260
                                265
Lys Ile Glu Arg
       275
<210> 5858
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5858
Gly Leu Ile Leu Ala Gly Phe Ile Asn Ser Pro Met Val Gly Gln Gly
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Leu Phe Leu Phe Asn Ile Pro Ile Gly Gly His Val Ser Cys Gly Gly 25 Phe Leu Lys Val Pro Ser Tyr Arg Pro Lys Pro Glu Asp Val Glu Phe 40 45 Asp Ala Arg Arg Asp Leu Phe Phe Cys His His Trp Ala Phe Pro Leu 55 Gln Ser Gly 65 <210> 5859 <211> 247 <212> PRT <213> Enterobacter cloacae <400> 5859 Thr Arg Ser Ile Pro Leu Thr Phe Thr Gly Ser Leu Met Arg Pro Ile 10 Val Val Val Leu Leu Ile Leu Ala Ala Ala Leu Thr Pro Ile Leu Trp 20 25 Arg Val Glu Arg Ala Ala Pro Asp Pro Val Val Gln Val Asp Leu Leu 40 4.5 Ala Ser Arg Glu Val Arg Ile Ala Thr Ala Ile Ser Ala Gly Asn Gly 5.5 Leu Ser Gln Ala Ala Ile Val Phe Ile Pro Ser Tyr Ala Phe Leu Ala 70 75 Leu Ser Leu Ser Glu Ser Met Ala Ser Phe Ser Leu Leu Pro Phe Val 85 90 Thr Thr Met Ala Leu Ser Ala Pro Ile Val Gly Val Leu Leu Asp Arg 100 105 Val Gly Ser Arg Val Val Met Ile Ser Gly Ser Leu Ile Leu Met Val 115 120 125 Gly Cys Thr Ile Met Ala Leu Leu Ser Ser Thr Thr Pro Leu Phe Ile 130 135 140 Leu Ala Glu Val Leu Met Ala Leu Gly Leu Ile Thr Val Ile Gly Ala 150 155 Pro Leu Arg Tyr Ile Met Leu Ser Glu Thr Pro Pro Glu His Arg Ala 165 170 175 Ser Gly Gln Ala Leu Ile Asn Ile Leu Ser Ser Ala Gly Gln Leu Val 180 185 Gly Gly Ala Leu Ile Gly Gly Ile Val Ala Ser Met Gly Ser Gly Val 200 205 Met Gly Tyr Arg Phe Ser Phe Leu Phe Leu Val Ala Val Ala Phe Thr 215 220 Leu Phe Leu Leu Ser Thr Gly Leu Lys Gly Arg Asp Val Glu Leu Glu 230 Thr Met Lys Arg Asp Ser Cys 245 <210> 5860 <211> 250 <212> PRT <213> Enterobacter cloacae <400> 5860 Phe Met Phe Leu Ser Val Ile Thr Val Ala Phe Arg Asn Tyr Glu Gly 10 Val Val Lys Thr Trp Arg Ser Leu Arg Asn Leu Ala Arg Asp Pro Ser Leu Thr Phe Glu Trp Ile Val Val Asp Gly Gly Ser Asn Asp Gly Thr

35 40 45 Ala Glu Phe Leu Glu Lys Leu Asn Gly Glu Phe Asn Leu Arg Tyr Ile

```
55
Ser Glu Lys Asp Lys Gly Ile Tyr Asp Ala Met Asn Lys Gly Ile Asn
                   70
                                        75
Met Ala Gln Gly Arg Tyr Ala Ile Phe Leu Asn Ser Gly Asp Val Phe
                                    90
His Glu Asn Val Ala Leu Phe Ala Arg Gln Leu Ala Arg Gln Lys Glu
                                105
Asp Ala Met Phe Ile Gly Asp Ala Leu Leu Asp Phe Gly Glu Gly Lys
                            120
                                                125
Lys Val Leu Arg Gly Ala Lys Pro Gly Trp Tyr Ile Tyr His Ser Leu
                        135
                                            140
Pro Ala Ser His Gln Ala Ile Phe Phe Pro Met Ser Gly Leu Lys Lys
                    150
                                        155
Gln Pro Tyr Asp Leu Arg Tyr Lys Val Ser Ser Asp Tyr Ala Leu Ala
                                    170
                165
Ala Ser Leu Tyr Lys Ser Gly Tyr Pro Phe Arg Arg Ile Lys Gly Leu
            180
                                185
                                                     190
Val Ser Glu Phe Ser Met Gly Gly Val Ser Thr Ser Asn Asn Leu Glu
                            200
                                                 205
Leu Cys Gln Asp Ala Lys Asn Val Gln Arg Lys Ile Leu Arg Val Pro
                        215
Gly Phe Trp Ala Glu Leu Ser Tyr Phe Leu Arg Leu Lys Thr Thr Gly
                    230
                                        235
Lys Ala Lys Ala Leu Tyr Asn Lys Ala
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<210> 5861
<211> 117
<212> PRT
<213> Enterobacter cloacae
<400> 5861
Gly Asn Val Met Gln Glu Leu Asn Gly Phe Ser Val Pro Lys Gly Phe
Arg Gly Gly Ser Gly Ile Lys Val Gln Leu Trp Trp Ala Val Gln Ala
Thr Leu Phe Ala Trp Ser Pro Gln Ile Leu Tyr Arg Trp Arg Ala Phe
Leu Leu Arg Leu Phe Gly Ala Lys Ile Gly Lys Asn Val Val Ile Arg
                        55
Pro Ser Val Lys Ile Thr Tyr Pro Trp Lys Leu Thr Leu Gly Asp Tyr
                                        75
Ala Trp Val Gly Asp Asp Ala Val Leu Tyr Thr Leu Gly Glu Ile Thr
                85
                                    90
Ile Gly Ala Asn Ser Val Val Ser Gln Lys Cys Tyr Leu Cys Thr Gly
            100
                                105
Ser His Asp Phe Met
       115
<210> 5862
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 5862
Ile Ile Tyr Phe Ser Trp Phe Ala Val Leu Leu Thr Leu Trp Tyr Leu
                                    10
Phe Lys Val Phe Lys Met Met Ile Asn Ala Phe Gly Asp Asn Gln Asn
                                25
Phe Arg Val Gln Leu Tyr Leu Phe Thr Pro Val Ser Leu Phe Phe Thr
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Gly Ser Ile Phe Ser Pro Glu Tyr Ala Phe Leu Ile Val Cys Pro Phe 5.5 Ile Leu Arg Lys Ala Leu Asn Ile Thr Ser Val 70 <210> 5863 <211> 124 <212> PRT <213> Enterobacter cloacae <400> 5863 Thr Ala Ala Asp Leu Leu Gln Leu Ser Thr Ser Gln Arg Gln Gly 10 Arg Tyr Lys Thr Thr Leu Asn Arg Gly Val Met Ala Pro Lys Leu Leu 25 Ile Ile Asp Glu Ile Gly Tyr Leu Pro Phe Ser Gln Glu Glu Ala Lys Leu Phe Phe Gln Val Ile Ala Lys Cys Tyr Glu Lys Ser Ala Met Ile 5.5 Leu Thr Ser Asn Leu Pro Phe Gly Gln Trp Asp Gln Thr Phe Ala Gly 70 75 Asp Ala Ala Leu Thr Ser Ala Met Leu Asp Arg Ile Leu His His Ser 85 90 His Val Val Gln Ile Lys Gly Glu Ser Tyr Arg Leu Lys Gln Lys Arg 105 110 Lys Ala Gly Val Ile Ala Glu Ala Asn Pro Glu 115 <210> 5864 <211> 709 <212> PRT <213> Enterobacter cloacae <400> 5864 Thr Arg Asn Gln Met Ala Arg Thr Thr Pro Ile Ala Arg Tyr Arg Asn Ile Gly Ile Ser Ala His Ile Asp Ala Gly Lys Thr Thr Thr Glu Arg Ile Leu Phe Tyr Thr Gly Val Asn His Lys Ile Gly Glu Val His Asp Gly Ala Ala Thr Met Asp Trp Met Glu Gln Glu Gln Glu Arg Gly Ile Thr Ile Thr Ser Ala Ala Thr Thr Ala Phe Trp Ser Gly Met Ala 75 Lys Gln Tyr Glu Pro His Arg Val Asn Ile Ile Asp Thr Pro Gly His Val Asp Phe Thr Ile Glu Val Glu Arg Ser Met Arg Val Leu Asp Gly 100 105 110 Ala Val Met Val Tyr Cys Ala Val Gly Gly Val Gln Pro Gln Ser Glu 120 125 Thr Val Trp Arg Gln Ala Asn Lys Tyr Lys Val Pro Arg Ile Ala Phe 135 140 Val Asn Lys Met Asp Arg Met Gly Ala Asn Phe Leu Lys Val Val Gly 150 155 Gln Ile Lys Thr Arg Leu Gly Ala Asn Pro Val Pro Leu Gln Leu Ala 165 170 Ile Gly Ala Glu Glu Gly Phe Thr Gly Val Ile Asp Leu Val Lys Met 185 Lys Ala Ile Asn Trp Asn Glu Thr Asp Ala Gly Val Thr Phe Glu Tyr

195 200 205 Glu Asp Ile Pro Ala Glu Met Gln Asp Leu Ala Asp Glu Trp His Gln

	210					215					220				
Asn 225	Leu	Ile	Glu	Ser	Ala 230	Ala	Glu	Ala	Ser	Glu 235	Glu	Leu	Met	Glu	Lys 240
Tyr	Leu	Gly	Gly	Glu 245	Glu	Leu	Ser	Glu	Gln 250	Glu	Ile	Lys	Ser	Ala 255	Leu
Arg	Gln	Arg	Val 260	Leu	Asn	Asn	Glu	Ile 265	Ile	Leu	Val	Thr	Cys 270	Gly	Ser
Ala	Phe	Lys 275	Asn	Lys	Gly	Val	Gln 280	Ala	Met	Leu	Asp	Ala 285	Val	Val	Asp
Tyr	Leu 290	Pro	Ser	Pro	Ile	Asp 295	Val	Pro	Ala	Ile	Asn 300	Gly	Ile	Leu	Asp
Asp 305	Gly	Lys	Asp	Thr	Pro 310	Ala	Glu	Arg	His	Ala 315	Ser	Asp	Glu	Glu	Pro 320
Phe	Ser	Ala	Leu	Ala 325	Phe	Lys	Ile	Ala	Thr 330	Asp	Pro	Phe	Val	Gly 335	Asn
Leu	Thr	Phe	Phe 340	Arg	Val	Tyr	Ser	Gly 345	Val	Val	Asn	Ser	Gly 350	Asp	Thr
Ile	Leu	Asn 355	Ser	Val	Lys	Ala	Ala 360	Arg	Glu	Arg	Phe	Gly 365	Arg	Ile	Val
Gln	Met 370	His	Ala	Asn	Lys	Arg 375	Glu	Glu	Ile	Lys	Glu 380	Val	Arg	Ala	Gly
Asp 385	Ile	Ala	Ala	Ala	Ile 390	Gly	Leu	Lys	Asp	Val 395	Thr	Thr	Gly	Asp	Thr 400
Leu	Cys	Asp	Pro	Asp 405	His	Pro	Ile	Ile	Leu 410	Glu	Arg	Met	Glu	Phe 415	Pro
			420		Ile			425		_		_	430	_	
Glu	Lys	Met 435	Gly	Leu	Ala	Leu	Gly 440	Arg	Leu	Ala	Lys	Glu 445	Asp	Pro	Ser
	450		_		Asp	455					460				_
465					Leu 470					475	-		_	_	480
				485	Asn		_	_	490				-	495	
			500		Val			505		_			510	_	
		515			Gln		520					525			
	530				Asn	535					540				
545					Pro 550					555					560
				565	Lys				570					575	
_		_	580		Leu			585		_		_	590	-	
		595			Lys		600					605	_		-
	610			_	Pro	615					620				
Val 625	Glu	Thr	Pro	Glu	Glu 630	Asn	Thr	Gly	Asp	Val 635	Ile	Gly	Asp	Leu	Ser 640
				645	Leu				650					655	
			660		Val			665					670		
Gln	Leu	Arg 675	Ser	Leu	Thr	Lys	Gly 680	Arg	Ala	Ser	Tyr	Thr 685	Met	Glu	Phe
Leu	Lys 690	Tyr	Asp	Asp	Ala	Pro 695	Asn	Asn	Val	Ala	Gln 700	Ala	Val	Ile	Glu

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Ala Arg Gly Lys
705
<210> 5865
<211> 126
<212> PRT
<213> Enterobacter cloacae
<400> 5865
Ser Thr Gly Leu Lys Pro Lys Ser Arg Ala Leu Ser Glu Gly Glu Ser
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Thr Ile Val Arg Asn Ile Ala Val Ser Lys Glu Lys Phe Glu Arg Thr
            20
                                25
Lys Pro His Val Asn Val Gly Thr Ile Gly His Val Asp His Gly Lys
        35
                            40
Thr Thr Leu Thr Ala Ala Ile Thr Thr Val Leu Ala Gln Thr Tyr Gly
Gly Ala Ala Arg Ala Phe Asp Gln Ile Asp Asn Ala Pro Glu Glu Lys
                    70
Ala Arg Gly Ile Thr Ile Asn Thr Ser His Val Glu Tyr Asp Thr Pro
                                     90
Thr Arg His Tyr Ala His Val Asp Cys Pro Gly His Ala Asp Tyr Val
                                105
Ser Leu His Pro Arg Ala Leu Asp Gly Ser Thr Leu Arg
<210> 5866
<211> 235
<212> PRT
<213> Enterobacter cloacae
<400> 5866
Cys Thr Thr Phe Gly Gln Arg Thr Gln Leu Ser Cys Ile Ser Glu His
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Phe Arg Gln Arg Asn Phe Ser Val Asp Leu Asn Ala Ser Tyr Phe Gly
            20
                                25
Phe Leu Thr Thr Gln His Thr Ala Thr Thr Ala Gln Val Thr Asp Asn
                            40
Val Thr Gly Val Leu Phe Arg Ser Phe Tyr Phe Asn Leu His Asp Arg
                        55
Leu Lys Gln Asn Trp Phe Cys Phe Leu Lys Ala Phe Phe Lys Gly Asn
                    7.0
                                        75
Arg Arg Ser Gln Phe Lys Arg Gln Phe Arg Gly Val Asn Val Val Val
                85
                                    90
Arg Thr Glu Val Gln Thr Asn Thr His Val Tyr Asn Arg Val Thr Ser
            100
                                105
                                                     110
Gln Arg Thr Ser Phe Gln Leu Leu Leu Asp Ala Phe Ile Asn Gly Arg
       115
                            120
                                                 125
Asp Val Phe Ala Arg Asn Tyr Thr Thr Phe Asp Val Val Asp Glu Leu
                        135
                                            140
Val Thr Phe Arg Val Arg Ala Arg Leu Gln Trp Val His Val Asp His
                    150
                                        155
Asn Val Thr Val Leu Thr Ala Thr Thr Arg Leu Leu Ser Val Phe Thr
               165
                                    170
Phe Asn Val Gly Asn Phe Arg Ala Asn Arg Phe Ala Val Ser Asn Leu
                                185
                                                     190
Arg Phe Thr His Val Arg Phe Asn Val Glu Phe Thr Leu His Thr Val
                            200
                                                205
Asn Asp Asp Val Gln Val Gln Phe Thr His Thr Ser Asp Asp Gly Leu
                        215
                                            220
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Val Arg Phe Phe Ile Ser Pro Tyr Thr Glu

<210> 5867 <211> 371

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<212> PRT
<213> Enterobacter cloacae
<400> 5867
Trp Val Phe Phe Arg Gln Thr Ala Gln Ser Gln Thr His Phe Phe Leu
Val Ser Phe Gly Phe Trp Phe Asn Cys Asp Gly Asp Tyr Arg Leu Arg
                                25
Glu Phe His Thr Leu Gln Asn Asp Arg Val Ile Arg Ile Thr Gln Ser
                            40
Val Thr Ser Gly His Val Phe Gln Thr Asp Ser Ser Ser Asp Val Ala
                        55
Arg Thr Asn Phe Phe Asp Leu Phe Thr Phe Val Ser Val His Leu Tyr
                    70
                                        7.5
Asp Thr Ala Lys Thr Phe Thr Arg Arg Phe His Gly Val Gln Asp Gly
                85
                                    90
Val Thr Gly Val Asn His Thr Arg Val Asn Ala Glu Glu Gly Gln Val
            100
                                105
Thr His Glu Trp Val Gly Ser Asn Phe Glu Arg Gln Cys Arg Glu Trp
                            120
Leu Phe Ile Thr Cys Val Thr Leu Ser Arg Ser Ile Phe Thr Val Val
                        135
Gln Asp Ala Val Asp Arg Arg Asn Val Asn Arg Gly Trp Gln Val Val
                    150
                                        155
Asn Tyr Arg Ile Gln His Arg Leu Asn Thr Phe Val Leu Glu Arg Arg
                                    170
Thr Thr Gly Tyr Gln Asp Asp Phe Val Val Gln Asn Ala Leu Thr Gln
            180
                                185
Ser Arg Phe Asp Leu Leu Leu Arg Gln Phe Phe Thr Thr Gln Val Phe
                            200
Phe His Gln Leu Phe Arg Ser Phe Cys Cys Gly Phe Asp Gln Val Leu
                        215
Val Pro Phe Val Ser Gln Val Leu His Leu Cys Arg Asp Ile Phe Val
                    230
                                        235
Phe Glu Gly Asn Ala Arg Ile Cys Phe Val Pro Val Asp Gly Phe His
                                    250
Phe His Gln Val Asp Asn Ala Gly Glu Ala Phe Phe Ser Thr Asn Cys
                                265
Gln Leu Lys Arg Asn Arg Val Arg Ala Gln Thr Gly Phe Asp Leu Ala
                            280
Asn Asn Phe Gln Glu Val Ser Thr His Thr Val His Phe Val Asn Glu
                        295
                                            300
Arg Asp Ala Trp Asn Phe Ile Phe Val Cys Leu Thr Pro Tyr Gly Phe
                    310
                                        315
Arg Leu Trp Leu Asn Thr Thr Asn Cys Ala Ile Asn His Tyr Arg Ala
                325
                                    330
Val Lys Asn Thr His Gly Thr Phe Tyr Phe Asp Gly Glu Val Asn Val
                               345
Pro Trp Gly Val Asp Asp Val Tyr Ala Met Arg Phe Val Leu Leu Ser
                           360
His Thr
   370
<210> 5868
<211> 63
<212> PRT
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<213> Enterobacter cloacae

<400> 5870

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<400> 5868
Ser Gly Ser His Arg Val Ser Pro Val Val Thr Ser Phe Arg Pro Ile
                                    10
Ala Ala Met Ser Pro Ala Arg Thr Ser Leu Ile Ser Ser Arg Leu
                                25
Leu Ala Cys Ile Cys Thr Ile Arg Pro Lys Arg Ser Arg Ala Ala Phe
        35
                            40
Thr Glu Phe Arg Met Val Ser Pro Glu Leu Thr Thr Pro Glu
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                        55
<210> 5869
<211> 275
<212> PRT
<213> Enterobacter cloacae-
<400> 5869
Pro His Ile Leu Asp Leu Phe Ala Pro Ser Leu Glu Pro Gly His Ser
                                     10
Lys Thr Met Met Ala Ala Phe Ile Val Ala Ile Arg Gly Thr Val Thr
Gln Ala Val Leu Leu Gly Leu Ala Ala Thr Ile Ser His Thr Ser Ile
Val Trp Leu Ile Ala Leu Gly Gly Met Tyr Ile Arg Gln Lys Phe Thr
                        55
Ala Glu Ser Ala Glu Pro Trp Phe Gln Leu Ile Ser Ala Ile Ile Ile
                                         75
Leu Ala Thr Ala Ala Trp Met Phe Trp Arg Thr Trp Arg Gly Glu Lys
                                    90
                85
Leu Trp Arg Met Glu Gln Glu Asp Glu His Gly His Val Asn His Pro
                                105
            100
                                                     110
His Asp Glu Thr Arg Val Ile Asp Thr Gly His Gly Ser Val Glu Leu
                            120
                                                 125
        115
Ser Ile Phe Glu Glu Gly Gln Pro Pro His Trp Arg Leu Arg Ser Leu
                        135
                                            140
Ser Gly Arg Lys Trp Glu Ala Ser Asp Ile Thr Leu Val Thr Asn Arg
                    150
                                        155
Gly Thr Gly Thr Phe Ser Gln Val Phe Asn Phe Val Glu Lys Asp Gly
                                    170
                165
Phe Met Glu Ser Ala Gln Pro Ile Pro Glu Pro His Asn Phe Glu Val
            180
                                185
                                                     190
Cys Leu Ser Leu Gly His Arg Gly His Val His Asp Tyr Asp Val Glu
                            200
                                                 205
Phe Arg Glu His Asp His Asn His Asp His Ser Ala Leu Glu Gly Leu
                        215
                                             220
Asp Val Ser Ser Leu Glu Tyr Gln Asp Ala His Glu Lys Ala His Ala
                    230
                                        235
Asn Asp Ile Lys Lys Arg Phe Ala Asn Ser Ser Val Thr Thr Gly Gln
                245
                                    250
Ile Ile Leu Ser Arg Pro Asp Gly Leu His His Ala Asp Gly Lys Ile
                                265
Lys Arg Ser
        275
<210> 5870
<211> 149
<212> PRT
<213> Enterobacter cloacae
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Val Ile Phe His Gln Pro Leu Val Ala Cys Phe Asp Lys Thr Lys Leu

10 Thr Phe Asn Asn Pro Lys Arg Val Leu His Leu Cys Pro Asp Ala Gly 25 Phe Gln Val Phe Glu Phe Asp Gly Gly Phe Val Phe Ala Gly Val Leu 40 Phe Gln Tyr Pro Asp Phe Pro Trp Thr Phe Ser Asp Glu Pro Val His Ile Thr Val Leu Gln Leu Ile Pro Phe Leu Cys Ala Thr Ile Thr Arg 75 Ile Gly Gly Asp Lys Phe Phe Val Thr Val Gln Lys Ile Ile Gln Leu 85 90 Val Gln Val Met Phe Ile Ser Gly Gly Gly His Gln Arq Met Ser Lys 105 Ala Ala Phe Ser Ile Asp Ser Asn Met Ser Leu His Ala Lys Val Pro 120 Leu Ile Ser Phe Phe Gly Leu Met His Ile Gly Val Thr Leu Phe Val 135 Phe Ile Leu Gly 145 . <210> 5871 <211> 329 <212> PRT <213> Enterobacter cloacae <400> 5871 Gly His Met Ser Gln Gln Leu Thr Phe Ala Asp Ser Glu Phe Ser Ser Lys Arg Arg Leu Thr Arg Lys Glu Ile Phe Leu Ser Arg Met Asp Thr Leu Leu Pro Trp Pro Gln Leu Leu Gly Asn Ile Glu Pro Val Tyr Pro Lys Ala Gly Asn Gly Arg Arg Pro Tyr Ser Leu Glu Thr Met Phe Arg Ile His Cys Leu Gln Leu Trp Tyr Ser Leu Gly Asp Glu Ala Met Glu Asp Ala Leu Tyr Glu Ile Ala Ser Met Arg Gln Phe Ala Leu Leu Ser 90 Leu Asp Lys Ala Ile Pro Asp Arg Thr Thr Ile Met Asn Phe Arg His 105 Leu Leu Glu Lys Tyr Lys Leu Thr Arg Lys Ile Phe Gln Thr Val Asn 120 125 Gln Trp Leu Leu Asp Cys Gly Val Met Met Thr Gln Gly Thr Leu Val 135 140 Asp Ala Thr Ile Ile Glu Ala Pro Ser Ser Thr Lys Asn Lys Asn Lys 150 155 Gln Arg Asp Pro Asp Met His Gln Thr Lys Lys Gly Asn Gln Trp His 165 170 Phe Gly Met Lys Ala His Ile Gly Val Asp Ala Glu Ser Gly Leu Thr 180 185 His Thr Leu Val Thr Thr Ala Ala Asn Glu His Asp Leu Asn Gln Leu 200 205 Asn Asn Leu Leu His Gly Asp Glu Glu Phe Val Ser Ala Asp Ala Gly 215 220 Tyr Arg Gly Ala Glu Lys Arg Asp Glu Leu Lys Asp Arg Asp Val Asp 230 235 Trp Phe Ile Ala Glu Arg Pro Gly Lys Val Arg Ile Leu Lys Lys His 250 Pro Arg Lys Asn Lys Ala Ala Ile Lys Leu Glu Tyr Leu Lys Ala Ser 265

Ile Arg Ala Lys Val Glu His Pro Phe Arg Val Ile Lys Arg Gln Phe

280 Gly Phe Ile Lys Ala Arg Tyr Lys Gly Leu Met Lys Asn Asp Ser Gln 295 300 Leu Ala Met Leu Phe Thr Leu Ala Asn Leu Phe Lys Val Asp Gln Met 310 Ile Arg Arg Gln Thr Lys Ser Ala 325 <210> 5872 <211> 344 <212> PRT <213> Enterobacter cloacae <400> 5872 Arg Leu Pro Ala Ser Gly Gly Ile Arg Met Arg Lys Ser Val Ile Ala Ile Ile Ile Val Leu Val Val Leu Tyr Thr Ser Ile Phe Val Val Lys Glu Gly Glu Arg Gly Ile Lys Phe Gln Phe Ser Ser Val Val Arg 40 Asp Gly Asp Lys Arg Pro Val Ile Tyr Glu Pro Gly Leu His Phe Lys Ile Pro Phe Ile Gln Ser Val Lys Thr Leu Asp Ala Arq Ile Gln Thr Met Asp Asn Gln Ala Asp Arg Phe Val Thr Lys Glu Lys Lys Asp Leu 90 Ile Val Asp Ser Tyr Ile Lys Trp Arg Ile Ser Asp Phe Ser Arg Tyr 100 105 Phe Leu Ala Thr Gly Gly Gly Asp Val Ser Gln Ala Glu Val Leu Leu 120 Lys Arg Lys Phe Ser Asp Arg Leu Arg Ser Glu Ile Gly Arg Leu Asp 135 140 Val Lys Asp Ile Val Thr Asp Ser Arg Gly Arg Leu Thr Leu Glu Val 150 155 Arg Asp Ala Leu Asn Ser Gly Ser Ala Gly Thr Glu Asp Glu Val Glu 170 Thr Pro Ala Ala Asp Asp Ala Ile Ala Lys Ala Ala Glu Arg Val Gln 185 190 Ala Glu Thr Asn Gly Lys Val Pro Val Ile Asn Pro Asn Ser Met Ala 200 Ala Leu Gly Ile Glu Val Val Asp Val Arg Ile Lys Gln Ile Asn Leu 215 220 Pro Ala Glu Val Ser Glu Ala Ile Tyr Asn Arg Met Arg Ala Glu Arg 230 235 Glu Ala Val Ala Arg Arg His Arg Ser Gln Gly Gln Glu Glu Ala Glu 245 250 Lys Leu Arg Ala Ala Ala Asp Tyr Glu Val Thr Lys Thr Leu Ala Glu 265 270 Ser Glu Arg Gln Gly Arg Ile Leu Arg Gly Glu Gly Asp Ala Glu Ala 280 285 Ala Lys Leu Phe Ala Asp Ala Phe Ser Gln Asp Pro Asp Phe Tyr Ala 295 300 Phe Ile Arg Ser Leu Arg Ala Tyr Glu Asn Ser Phe Lys Ser Asn Gln 310 315 Asp Val Met Val Leu Ser Pro Asp Ser Asp Phe Phe Arg Tyr Met Lys 325 330 Thr Pro Thr Asn Ala Thr Arg 340

<210> 5873 <211> 168

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<212> PRT
<213> Enterobacter cloacae
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Gln Ala Tyr Thr Asn Glu Val Gln Pro Arg Ala Asn Gly Gln Ala Gln
            20
Arg Ile Leu Glu Glu Ala Arg Ala Tyr Lys Thr Gln Thr Ile Leu Glu
                             40
Ala Gln Gly Glu Val Ala Arg Phe Ala Lys Ile Leu Pro Glu Tyr Lys
Ala Ala Pro Glu Ile Thr Arg Glu Arg Leu Tyr Ile Glu Thr Met Glu
                                         75
Lys Val Leu Ser His Thr Arg Lys Val Leu Val Asn Asp Asn Lys Gly
                85
                                     90
Gly Asn Leu Met Val Leu Pro Leu Asp Gln Met Leu Lys Gly Gly Ser
                                 105
Ala Pro Ala Ala Lys Asp Asn Ser Gly Ala Asn Asn Leu Leu Arg Leu
        115
                             120
Pro Pro Ala Ser Ser Gly Ser Ala Ser Ala Asn Thr Thr Pro Ser Ser
                        135
                                             140
Asn Asp Gly Asp Ile Met Asp Gln Arg Arg Ala Asn Ala Gln Arg Asn
                    150
                                         155
Asp Tyr Gln Arg Gln Gly Glu
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<210> 5874
<211> 303
<212> PRT
<213> Enterobacter cloacae
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<222>(296)
<400> 5874
Val Arg Leu Arg Gly Ser Ser Leu Pro Leu Val Lys Ile Met Thr Asp
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Pro Ala Gly Ala Ser Glu Leu Val Phe Gly Leu Phe Trp Leu Leu Gly
            20
                                25
Tyr Gln Phe Ser Pro Arg Leu Ala Asp Ala Gly Ala Ser Val Phe Trp
                            40
Arg Met Asp His Asp Ala Asp Tyr Gly Val Leu Asn Asp Ile Ala Arg
                        55
Gly Gln Ser Asp Pro Arg Lys Ile Val Leu Gln Trp Asp Glu Met Ile
                    70
                                        75
Arg Thr Ala Gly Ser Leu Lys Leu Gly Lys Val Gln Val Ser Val Leu
                                    90
                85
Val Arg Ser Leu Leu Lys Ser Glu Arg Pro Ser Gly Leu Thr Gln Ala
                                105
Ile Ile Glu Val Gly Arg Ile Asn Lys Thr Leu Tyr Leu Leu Asn Tyr
                            120
Ile Asp Asp Glu Asp Tyr Arg Arg Ile Leu Thr Gln Leu Asn Arg
                        135
                                            140
Gly Glu Ser Arg His Ala Val Ala Arg Ala Ile Cys His Gly Gln Lys
                   150
                                        155
Gly Glu Ile Arg Lys Arg Tyr Thr Asp Gly Gln Glu Asp Gln Leu Gly
                165
                                    170
Thr Leu Gly Leu Val Thr Asn Ala Val Val Leu Trp Asn Thr Ile Tyr
            180
                                185
                                                    190
Met Gln Ala Ala Leu Asp His Leu Arg Ala Gln Gly Glu Thr Leu Asn
                            200
                                                205
Asp Glu Asn Ile Ala Arg Leu Ser Pro Leu Cys His Gly His Ile Asn
                        215
                                            220
Met Leu Gly His Tyr Ser Phe Thr Leu Ala Glu Leu Val Thr Lys Gly
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230 235 His Leu Lys Pro Leu Lys Glu Ala Ser Glu Ala Xaa Asn Val Xaa Xaa 245 250 260 265 His Gln Val His Ala Lys Met Gly Gly His Pro Ala Gly Glu Lys Ala 280 Pro Arg Ala Val Leu Val Val Xaa Thr Ser Val Gly Pro Phe 295 <210> 5875 <211> 743 <212> PRT <213> Enterobacter cloacae <400> 5875 Asn Pro Glu Arg Lys Phe Pro Glu Gly Ile Gln Tyr Ser Ile Ala Tyr 10 Asp Pro Thr Phe Phe Ala Ser Ala Ser Leu Lys Ser Val Ala Thr Thr 25 20 Leu Leu Glu Ala Thr Ile Leu Val Val Leu Val Val Met Leu Phe Leu 40 Gln Thr Trp Arg Ala Ser Ile Ile Pro Leu Val Ala Val Pro Ile Ser 55 60 Leu Val Gly Thr Phe Ala Leu Met Asp Val Phe Gly Phe Ser Leu Asn 70 75 Thr Leu Ser Leu Phe Gly Leu Val Leu Ser Ile Gly Ile Val Val Asp 8.5 90 Asp Ala Ile Val Val Val Glu Asn Val Glu Arg His Ile Ala Arg Gly 100 105 110 Leu Ser Pro Lys Asp Ala Ala Arg Lys Ala Met Asp Glu Val Thr Gly 115 120 Pro Ile Leu Ala Ile Thr Ser Val Leu Ala Ala Val Phe Ile Pro Ser 135 140 Ala Phe Leu Ser Gly Leu Gln Gly Glu Phe Tyr Arg Gln Phe Ala Leu 150 155 Thr Ile Ala Ile Ser Thr Ile Leu Ser Ala Ile Asn Ser Leu Thr Leu 165 170 Ser Pro Ala Leu Ala Ser Val Leu Leu Lys Pro His Gln Gly Thr Asp 185 Lys Lys Asp Met Leu Thr Arg Val Leu Glu Arg Leu Leu Gly Ser Phe 200 Phe Gly Arg Phe Asn Thr Phe Phe Asp Arg Leu Ser Glu Lys Tyr Val 215 220 Asp Thr Val Arg Arg Ile Val Arg Gly Ser Thr Ile Val Leu Ile Leu 230 235 Tyr Ala Gly Phe Leu Ala Met Thr Phe Leu Gly Phe Lys Gln Val Pro 245 250 Gly Gly Phe Val Pro Ala Gln Asp Lys Tyr Tyr Leu Val Gly Ile Ala 260 265 270 Gln Leu Pro Thr Gly Ala Ser Leu Asp Arg Thr Glu Ala Val Lys 280 285 Glu Met Thr Arg Leu Ala Leu Ala Gln Pro Gly Val Glu Ser Val Val 295 300 Ala Phe Pro Gly Leu Ser Val Asn Gly Pro Asn Met Pro Asn Ser Ala 310 315 Leu Met Phe Thr Met Leu Lys Pro Phe Lys Asp Arg Gln Asp Pro Ser 330 Leu Ser Ala Tyr Ala Ile Ala Gly Ser Leu Met Gly Lys Phe Ser Lys 345

Ile Pro Asp Gly Phe Val Gly Ile Phe Pro Pro Pro Val Pro Gly

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360
Leu Gly Ser Met Gly Gly Phe Lys Leu Gln Ile Glu Asp Arg Ala Gly
                        375
                                             380
Leu Gly Phe Glu Glu Leu Ala Arg Val Gln Gly Thr Ile Met Ala Lys
                    390
                                        395
Ala Met Gln Thr Pro Glu Leu Ala Gly Met Met Ala Ser Phe Glu Thr
                405
                                     410
Asn Ser Pro Gln Ile Gln Val Asp Ile Asp Arg Val Lys Ala Lys Ser
                                425
                                                     430
            420
Gln Gly Val Ala Leu Thr Asp Ile Phe Asp Thr Leu Gln Val Asn Leu
                            440
        435
Gly Ser Leu Tyr Val Asn Asp Phe Asn Arg Phe Gly Arg Thr Tyr Arg
                        455
                                             460
Val Ile Thr Gln Ala Asp Ala Pro Phe Arg Met Gln Ala Glu Asp Ile
                    470
                                         475
Gly Leu Leu Lys Val Arg Asn Ala Ala Gly Glu Met Ile Pro Leu Ser
                485
                                     490
Ala Leu Ile Asn Ile Lys Leu Thr Ser Gly Pro Asp Arg Val Met Arg
                                505
Tyr Asn Gly Tyr Pro Ser Ala Asp Ile Thr Gly Gly Thr Ala Pro Gly
        515
                            520
Tyr Ser Ser Gly Gln Ala Thr Asp Ala Ile Glu Lys Ile Val Lys Glu
                        535
Ser Leu Pro Glu Gly Met Ala Tyr Glu Trp Thr Asp Leu Thr Tyr Gln
                    550
                                         555
Glu Lys Leu Ala Gly Asn Ser Ala Leu Tyr Ile Phe Pro Leu Ala Val
                565
                                     570
Phe Phe Ala Phe Leu Ile Leu Ala Ala Gln Tyr Asn Ser Trp Ser Leu
                                585
                                                     590
Pro Phe Ala Val Leu Leu Ile Ala Pro Met Ala Leu Leu Ser Ala Ile
        595
                            600
Gly Gly Val Trp Ile Ser Asn Gly Asp Asn Asn Ile Phe Thr Gln Ile
                        615
                                             620
Gly Phe Val Val Leu Val Gly Leu Ala Ala Lys Asn Ala Ile Leu Ile
                    630
                                         635
Val Glu Phe Ala Arg Thr Gln Glu Asn Glu Gly Leu Ser Pro Leu Glu
                645
                                    650
Ala Val Leu Glu Ala Ala His Leu Arg Leu Arg Pro Ile Leu Met Thr
                                665
Ser Leu Ala Phe Ile Ala Gly Val Ile Pro Leu Val Leu Ala Ser Gly
                            680
                                                 685
Ala Gly Ala Glu Met Arg His Ala Met Gly Ile Ala Val Phe Ala Gly
                        695
                                             700
Met Leu Gly Val Thr Phe Phe Gly Leu Leu Thr Pro Val Phe Tyr
                    710
                                        715
Val Val Arg Ser Phe Ser Ile Arg Arg Lys Val Asn Ser His Gln
                725
                                    730
Leu Leu Ser Glu Lys Arg
            740
<210> 5876
<211> 93
<212> PRT
<213> Enterobacter cloacae
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<400> 5876

<221>UNSURE <222>(91)

<220>

Leu Gln Gln Met Asn Gly Lys Ala Leu Asp Leu Thr Thr Val Val Ser

<210> 5877 <211> 384

<212> PRT

<213> Enterobacter cloacae

<400> 5877 Pro Pro Ser Val Gln Gly Ala Leu Ala Gly Gly Pro Ser Ala Arg Phe Arg Gly Thr Gly Asn Arg Cys Gly His Cys Leu Arg Ala Thr Phe Leu 25 Pro Ser Pro Thr Arg Arg Phe Ser Ala Ile Thr Ala Glu Tyr Leu Val 40 Thr Ala Ala Gly Tyr His Phe Glu Glu Asn Arg Tyr Ala Ile Gly Glu 60 Gly Glu Thr Ile His Arg Thr Asp Phe Ser Val Ile Pro Ala Ser Val 70 75 Ser Tyr Arg Pro Ala Gln Ser Thr Ala Trp Pro Arg Thr Tyr Gly Pro 90 Gln Thr Ala Lys Val Val Gly Pro Gln Gly Glu Ser Ile Trp Thr Asp 105 Lys Tyr Gly Arg Val Lys Val Lys Phe His Trp Asp Arg Leu Ala Lys 120 Gly Asp Asp Thr Ser Ser Cys Trp Val Arg Val Ser Ser Ala Trp Ala 135 140 Gly Gln Gly Tyr Gly Gly Val Gln Ile Pro Arg Val Gly Asp Glu Val 150 155 Val Val Asp Phe Ile Asn Gly Asp Pro Asp Arg Pro Ile Ile Thr Gly 165 170 Arg Val Tyr Asn Asp Ala Ser Met Pro Pro Trp Ala Leu Pro Ala Ala 185 190 Ala Thr Gln Met Gly Phe Met Ser Arg Ser Lys Asp Gly His Lys Asp 200 205 Asn Ala Asn Ala Leu Arg Phe Glu Asp Lys Ala Gly Gln Glu Gln Ile 215 220 Trp Ile His Ala Glu Lys Asn Met Asp Thr Glu Ile Glu Asn Cys Glu 235 230 Thr His Asp Val Gly Val Asp Arg Lys Ile Ile Gly Arg Asp Glu 245 250 His Val Thr Val Lys Arg Asn Arg Asp Val Asn Val Gly Ala Asn Ser 265 Thr Ser Asn Thr Gly Asn Gln His Lys Phe Asn Val Gly Lys Asn Gln 280 Thr Val Leu Thr Met Asp Lys Glu Gly Asn Ala Leu Leu Glu Ala Thr 295 300 Thr Ser Ile Lys Leu Lys Val Asn Asp Asn Tyr Ile Leu Ile Thr Pro 315 Ser Thr Ile Glu Ile Ile Val Ser Glu Gly Thr Leu Lys Ala Glu Ser 330 Ile Thr Val Ala Ser Phe Lys Gly Thr Glu Leu Thr Lys Leu Gly Gly

340 345 Gly Ile Asn Ala Glu Met Lys Ala Asn Asp Thr Leu His Leu Asn Gly 360 Thr Asn Leu Thr Asp Ile Lys Gly Ala Val Val Lys Ile Asn Ser <210> 5878 <211> 364 <212> PRT <213> Enterobacter cloacae <400> 5878 Tyr Val Glu Gly Phe Leu Asn Met Gly Gln Pro Ala Ala Arg Ala Thr Ile Asp Val Ser Ala His Ser Gly Pro Ile Gln Ser Gly Ser Pro Asp 20 25 Val Ile Ile Gly Gly Phe Pro Ala Ala Arg Lys Gly Asp Thr Leu Ser Cys Ser Thr His Gly Ser Gly Ile Ile Val Gly Gly Ser Gly Thr Val Phe Val Asn Gly Met Pro Leu Ala Arg Gln Gly Asp Lys Thr Lys Cys Asp Val Ser Gly Ser Pro Ala Pro Ala Ile Pro Lys Ala Ala Pro Gln Tyr Trp Gly Gly Thr Leu Ala Lys Asn Ala Gly Glu Asp Gly Met 100 105 Met His Gly Glu His Phe Asp Ala Arg Val Leu Gly Ala Tyr Ala Ser 120 Leu Glu Asp Lys Asn Leu Asn Gly Asp Phe Asp Thr Ala Ser Ala Gly 135 140 Phe Ala Leu Ala Asp Ile Thr Ile Gly Asn Met Lys Ser Lys Asp Leu 150 155 Leu Arg Ala Glu Met Arg Asn Lys Leu Ala Val Ala Asn Ala Thr Gly 165 170 Ser Leu Tyr Gly Gly Gly Asn Asp Ile Tyr Gly Leu Asn Ala Asn Ala 185 Ala Ala Thr Gly Glu Gln Tyr Gly Gly Ser Val Ala Ala Gly Lys Glu 200 205 Gly Thr Leu Tyr Gly Gly Val Ser Gly Asp Val Thr Ile Gly Thr Ala 215 220 Glu Ala Lys Ala Val Leu Glu Val Tyr Thr Gly Asn Asp Gly Lys Tyr 230 235 Gly Leu Thr Ala Asp Ala Gly Ala Glu Ala Lys Gly Met Lys Gly Glu 245 250 Val Ser Gly Asn Leu Asp Ile Leu Gly Ile Val Ser Gly Glu Ala Lys 260 265 Ile Asp Gly Ser Phe Gly Ser Ala Gly Leu Ala Gly Gly Gly Ser Ala 280 285 Phe Trp Asp Thr Lys Asp Tyr Ser Val Asn Val Arg Val Thr Gly Gly 295 300 Ala Ala Gly Leu Val Trp Leu Lys Gly Asp Ala Ser Leu Lys Val Ala 310 315 Phe Lys Pro Ile Leu Asp Phe Phe Asp Tyr Leu Tyr Gly Glu Glu Asp 330 Glu Pro Ala Val Thr Ser Val Leu Thr Glu Ser Gly Asp Gly Thr Ile 345 Ile Thr Gly Cys Val Thr Val Leu Ile Gly Asp 360

<210> 5879 <211> 130 <212> PRT

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<213> Enterobacter cloacae
<400> 5879
Lys Arg Asp Thr Ile Tyr Ser Thr Gln Glu Ile Leu Met Ser Pro Phe
                                    10
Ser Thr Leu Gln Leu Phe Lys Asn Leu Ser Asp Glu Thr Arg Leu Gly
            20
Ile Val Leu Met Leu Lys Glu Met Gly Glu Leu Cys Val Cys Asp Leu
Cys Thr Ala Leu Glu Gln Ser Gln Pro Lys Ile Ser Arg His Leu Ala
Met Leu Arg Glu Ser Gly Leu Leu Leu Asp Arg Lys Asn Gly Lys Trp
                    70
Val His Tyr Arg Leu Ser Pro His Ile Pro Ser Trp Ala Ala Gln Val
Ile Glu Gln Ala Trp Leu Ser Gln Gln Asp Asp Val Gln Ala Ile Ala
                                105
Arg Lys Leu Ala Ser Ala Asn Cys Ser Gly Ser Gly Lys Ala Val Cys
                            120
Ile
   130
<210> 5880
<211> 131
<212> PRT
<213> Enterobacter cloacae
<400> 5880
His Leu Lys Ala Ala Ala Val Val Ile Leu Leu Val Ala Glu Met Ser
                                    10
Gly Gly His Met Lys Phe Leu Gln Asn Ile Pro Pro Tyr Leu Phe Phe
                                25
Thr Gly Lys Gly Gly Val Gly Lys Thr Ser Ile Ser Cys Ala Thr Ala
                                                45
                            40
Ile Ser Leu Ala Glu Gln Gly Lys Arg Val Leu Leu Val Ser Thr Asp
Pro Ala Ser Asn Val Gly Gln Val Phe Ser Gln Thr Ile Gly Asn Thr
                    70
                                        75
Ile Leu Pro Val Ala Ser Val Pro Gly Leu Ser Ala Leu Glu Ile Asp
               85
                                    90
Pro Gln Ala Ala Ala Gln Glu Tyr Arg Ala Arg Ile Val Asp Pro Ile
                               105
Lys Gly Ile Leu Pro Glu Ser Ser Pro Arg Gly Trp Gln Asp Pro Ser
Leu Ala Lys
   130
<210> 5881
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 5881
Ala Phe Ile Arg Arg Thr Ile Met Glu Asn Ile Ala Leu Ile Gly Ile
                                    10
Asp Leu Gly Lys Asn Ser Phe His Ile His Cys Gln Asp Arg Arg Gly
                                25
Lys Ala Val Tyr Arg Lys Lys Phe Thr Arg Pro Lys Leu Ile Glu Phe
                            40
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Leu Ala Thr Cys Pro Ala Thr Thr Ile Ala Met Glu Ala Cys Gly Gly

55 Ser His Phe Met Ala Arg Lys Leu Glu Glu Leu Gly His Phe Pro Lys 75 Leu Ile Ser Pro Gln Phe Val Arg Pro Phe Val Lys Ser Asn Lys Asn 85 90 Glu Phe Val Asp Ala Val Phe Thr Asn Gly Ala Gly Ser Thr Ile 100 105 <210> 5882 <211> 318 <212> PRT <213> Enterobacter cloacae <400> 5882 Phe Met Asn Ile Lys Arg Leu Val Leu Ser Ala Leu Val Val Gly Thr Ser Ser Tyr Leu Thr Gly Cys Ser Ile Gly Ser Ser Glu Ser Glu Cys Pro Gly Ile Glu Lys Gly Val Ile Cys Lys Gly Pro Arg Glu Val Met Glu Leu Thr Asn Asn Arg Asp Asp Leu Ser Ala Leu Ala Gly Glu Glu 55 Ser Glu Ser Gly Lys Glu Lys Ser Ala Val Asn Asp Ser Arg Tyr Pro 70 75 Thr Glu Ile Ser Pro Pro Gly Glu Val Lys Tyr Pro Gln Ser Thr Thr 85 90 Leu Lys Asn Gln Pro Val Ala Tyr Ser Lys Thr Glu Ile Lys Pro Val 105 100 110 Gly Gln Leu Pro Val Met Tyr Asp Lys Thr Leu Lys Met Gly Ala Pro 115 120 125 Thr Ser Ser Ile Gly Pro Arg Pro Ile Ser Gly Val Pro Val Asn Ser 135 140 Asn Val Arg Met Thr Ile Ser Tyr Ser Thr Ala Ser Ser Thr Gly Asn 155 150 Pro Phe Val His Pro Ala Ala Glu Val Val Lys Gln Thr Ser Tyr Pro 165 170 Val Ser Ala Gly Asn Ala Pro Arg Tyr Val Ala Pro Asn Ser Asp Ile 185 180 190 Ser Pro Gly Lys Asp Met Tyr Ser Leu Tyr Asn Gly Gln Pro Val Asn 200 205 Pro Thr Leu Asn Pro Gly Gln Ile Gln Gln Tyr Arg Ser Gln Gly Tyr 215 220 Lys Gln Ala Val Val Ala Pro Glu Pro Leu Ala Val Leu Gln Gln Gly 230 235 Lys Val Met Arg Ile Thr Phe Ala Pro Tyr Thr Asp Asp Asn Asp Ala 245 250 Leu Asn Leu Pro Gly Tyr Val Tyr Val Asn Val Lys Pro Gln Thr Trp 265 Ile Ala Gly Lys Asn Ser Thr Ser Asn Pro Ala Arg Ile Val Pro Leu 280 Glu Val Gln Asp Ala Ala Arg Glu Asn Met Gln Gln Gln Lys Ala 295 Thr Lys Ala Val Ser Ser Asn Gly Ile Val Arg Gln Leu 310 <210> 5883

<sup>&</sup>lt;211> 590

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Thr Pro Arg Lys Asn Ser Arg Trp Ala Glu Gly Phe Ile Asp Val Asn Thr Met Lys Arg Leu Asn Glu Gln Val Asn Val Pro Gly Arg Lys Tyr 25 Thr Val Thr Glu Asn His Phe Ser Ser Val Thr Gln Ser Asp Asp Glu Ser Glu His Arg Tyr Phe Lys Gln Leu Ser Val Val Lys Phe Pro Glu 55 Tyr Val Asn Phe Gly Cys Met Tyr Glu Leu Val Val Asn Trp Met His 75 70 Gly Arg Lys Thr Ile Phe Ser Pro Phe Met Ile Thr Gln Thr Val Gln 85 90 Phe Ala Asp Pro Leu Lys Leu Ser Lys Glu Asn Val Arg Tyr Lys Ala 105 100 Ile Thr Asn Lys Gln Ala Ser Ile Pro Ser Val Val Thr Phe Cys Pro 120 Arg Leu Arg Asp Met Asp Asn Asp Tyr Met Ala Val Thr Arg Glu Leu 135 140 Glu Asp Gly Ala Lys Leu Leu Arg Gly Tyr Leu Thr Phe Thr Val Met 150 155 Gly Ser Asn Ala Asn Ser Val Gln Thr Ala Ala Asn Asp Leu Lys Ser 170 Phe Tyr Leu Glu Ser Arg Val Lys Val Ala Asp Asp Ser Phe Ile Val 185 Phe Pro Ser Phe Met Ser Cys Leu Pro Met Cys Asn Asp Pro Lys Thr 200 Ile Phe Asp Leu Asp Arg Ser Glu Val Val Ser Asn Thr Gly Ala Ala 215 220 His Met Thr Pro Ile Phe Gly Pro Trp Lys Gly Asn Thr Asp Arg Pro 230 235 Val Leu Ser Leu Val Ser Arg Glu Gly Gln Leu Met Gly Leu Asp Ile 245 250 Phe Lys Thr Ser Ala Ser Tyr Asn Met Val Ile Gly Ala Thr Ser Gly 265 Ala Gly Lys Ser Phe Trp Thr Ala Tyr Leu Ile Asn Asn Tyr Leu Gly 280 Ala Gly Pro Arg Ser Asn Asn Leu Val His Tyr Arg Ser Thr Phe Lys 295 His Phe Leu Glu Asn Glu Tyr Pro Asp Asp Pro Asp Gly Ala Gln 315 310 Val Phe Val Val Asp Val Gly Arg Ser Tyr Gln Gly Ile Ala Glu Gln 330 325 Tyr Thr Asn Ser Gln Phe Ile Asp Phe Gly Lys Thr Pro Asp Phe Thr 345 Leu Asn Pro Phe Ala Phe Leu Thr Asp Ile Thr Val Asn Asp Asp Val 360 Phe Asn Glu Ala Pro Glu Phe Thr Gly Glu Ser Thr Ser Asn Asp Ala 380 375 Glu Lys Asp Lys Val Ala Gln Thr Ile Met Val Leu Asn Gln Leu Lys 395 390 Ile Met Ala Ser Glu Lys Gly Leu Ile Asp Asp Tyr Gln Gln Ser Val 405 410 Met Leu Gln Leu Ile Ala Glu Glu Tyr Gln Glu Ser Arg Lys Ser Gly 425 Arg Thr Gly Ser Ile Thr Gly Phe Ala Leu Arg Cys Lys Lys His Glu 440 Asp Lys Arg Ile Lys Asp Ile Gly Glu Gln Leu Gly Ala Trp Cys Glu 455 Gly Gly Ile Tyr Gly His Arg Phe Thr Asp Thr Leu Pro Pro Ile Asn 470 475 Phe Asp Ser Arg Phe Ile Val Leu Glu Leu Glu Leu Lys Gly Thr

485 490 Pro His Leu Gln Thr Val Val Leu Met Ser Ile Ile Gln Ala Ala Gln 505 His Ala Met Phe Ile Lys Lys Asp Gly Arg Arg Leu Phe Ile Leu 520 Asp Glu Ala Trp Glu Tyr Ile Arg Pro Asp Asn Ser Ser Gly Ala Gly 535 Asn Gln Ser Asn Gln Phe Phe Ser Ser Phe Leu Glu Ala Ala Trp Arg 550 555 Met Phe Arg Ile Thr Asn Cys Ala Gly Ile Cys Ile Thr His Ser Phe 565 570 Glu Lys Leu Phe Thr Ser Ser Val Gly Pro Ala Pro Glu Cys 585

<210> 5884

<211> 516

<212> PRT

<213> Enterobacter cloacae <400> 5884 Ser Tyr Thr His Ser Gly Gly Pro Ser Gly Pro Val Val Lys Thr Gln Ser Ser Gly Glu Tyr Leu Leu Glu Met Thr Gly Val Asn Lys Ser Phe Pro Gly Val Lys Ala Leu Asp Asn Val Asn Leu Lys Val Arg Pro His Ser Ile His Ala Leu Met Gly Glu Asn Gly Ala Gly Lys Ser Thr Leu Leu Lys Cys Leu Phe Gly Ile Tyr Gln Lys Asp Ser Gly Ser Ile Leu 75 Phe Gln Gly Lys Glu Ile Asp Phe His Ser Ala Lys Glu Ala Leu Glu 90 Asn Gly Ile Ser Met Val His Gln Glu Leu Asn Leu Val Leu Gln Arg 100 105 Ser Val Met Asp Asn Met Trp Leu Gly Arg Tyr Pro Thr Lys Gly Val 120 125 Phe Val Asp Gln Asp Lys Met Tyr Arg Asp Thr Lys Ala Ile Phe Asp 135 140 Glu Leu Asp Ile Asp Ile Asp Pro Arg Ala Arg Val Gly Thr Leu Ser 150 155 Val Ser Gln Met Gln Met Ile Glu Ile Ala Lys Ala Phe Ser Tyr Asp 165 170 Ala Lys Ile Val Ile Met Asp Glu Pro Thr Ser Ser Leu Thr Glu Lys 185 190 Glu Val Asn His Leu Phe Thr Ile Ile Arg Lys Leu Lys Asp Arg Gly 200 205 Cys Gly Ile Val Tyr Ile Ser His Lys Met Glu Glu Ile Phe Gln Leu 215 220 Cys Asp Glu Ile Thr Ile Leu Arg Asp Gly Gln Trp Ile Ala Thr Gln 230 235 Pro Leu Glu Gly Leu Asp Met Asp Lys Ile Ile Ala Met Met Val Gly 245 250 Arg Ser Leu Asn Gln Arg Phe Pro Asp Lys Glu Asn Lys Pro Gly Glu 265 Val Ile Leu Glu Val Arg Asn Leu Thr Ser Leu Arg Gln Pro Ser Ile 280 Arg Asp Val Ser Phe Asp Leu His Lys Gly Glu Ile Leu Gly Ile Ala 295 Gly Leu Val Gly Ala Lys Arg Thr Asp Ile Val Glu Thr Leu Phe Gly

Ile Arg Glu Lys Ala Glu Gly Thr Ile Thr Leu His Gly Lys Lys Ile

315

310

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325
                                    330
Asn Asn His Asn Ala Asn Glu Ala Ile Asn Asn Gly Phe Ala Leu Val
                                345
            340
Thr Glu Glu Arg Arg Ser Thr Gly Ile Tyr Ala Tyr Leu Asp Ile Asn
                            360
Phe Asn Ser Leu Ile Ser Asn Ile Arg Asn Tyr Lys Asn Lys Val Gly
                        375
                                             380
Leu Leu Asp Asn Ser Arg Met Lys Ser Asp Thr Gln Trp Val Ile Asp
                    390
                                        395
Ser Met Arg Val Lys Thr Pro Gly His Arg Thr Gln Ile Gly Ser Leu
                                    410
Ser Gly Gly Asn Gln Gln Lys Val Ile Ile Gly Arg Trp Leu Leu Thr
                                425
Gln Pro Glu Ile Leu Met Leu Asp Glu Pro Thr Arg Gly Ile Asp Val
                            440
                                                445
Gly Ala Lys Phe Glu Ile Tyr Gln Leu Ile Ala Glu Leu Ala Lys Lys
                        455
Asp Lys Gly Ile Ile Ile Ser Ser Glu Met Pro Glu Leu Leu Gly
                    470
                                        475
Ile Thr Asp Arg Ile Leu Val Met Ser Asn Gly Leu Val Ala Gly Ile
                485
                                    490
Val Glu Thr Lys Thr Thr Gln Asn Glu Ile Leu Arg Leu Ala Ser
            500
                                505
Leu His Leu
        515
<210> 5885
<211> 342
<212> PRT
<213> Enterobacter cloacae
<400> 5885
Asp Gln Gly Leu Leu Met Ser Ala Leu Asn Lys Lys Ser Phe Leu Thr
                                    10
Tyr Leu Lys Glu Gly Gly Ile Tyr Val Val Leu Leu Val Leu Leu Ala
            20
                                25
Ile Ile Ile Phe Gln Asp Pro Thr Phe Leu Ser Leu Leu Asn Leu Ser
                            40
                                                45
Asn Ile Leu Thr Gln Ser Ser Val Arg Ile Ile Ile Ala Leu Gly Val
                        55
                                            60
Ala Gly Leu Ile Val Thr Gln Gly Thr Asp Leu Ser Ala Gly Arg Gln
                    70
                                        75
Val Gly Leu Ala Ala Val Ile Ala Ala Thr Leu Leu Gln Ser Met Glu
               85
                                    90
Asn Ala Asn Lys Val Phe Pro Glu Met Ala Thr Met Pro Ile Phe Val
                                105
Val Ile Leu Ile Val Cys Ala Ile Gly Ala Val Ile Gly Leu Ile Asn
                            120
Gly Ile Ile Ala Tyr Leu Asn Val Thr Pro Phe Ile Thr Thr Leu
                        135
                                            140
Gly Thr Met Ile Ile Val Tyr Gly Ile Asn Ser Leu Tyr Tyr Asp Phe
                    150
                                        155
Val Gly Ala Ser Pro Ile Ser Gly Phe Asp Ser Gly Phe Ser Thr Phe
                                    170
                165
Thr Gln Gly Phe Val Ala Leu Gly Ser Phe Arg Leu Ser Tyr Ile Thr
                                185
            180
                                                    190
Phe Tyr Ala Leu Ile Ala Val Ala Phe Val Trp Ile Leu Trp Asn Lys
                            200
                                                205
Thr Arg Phe Gly Lys Asn Ile Phe Ala Ile Gly Gly Asn Pro Glu Ala
                        215
                                            220
```

Ala Lys Val Ser Gly Val Asn Val Ala Leu Asn Leu Leu Met Ile Tyr

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230
                                        235
Ala Leu Ser Gly Val Phe Tyr Ala Phe Gly Gly Met Leu Glu Ala Gly
                245
                                    250
Arg Ile Gly Ser Ala Thr Asn Asn Leu Gly Phe Met Tyr Glu Leu Asp
                                265
            260
                                                     270
Ala Ile Ala Ala Cys Val Val Gly Gly Val Ser Phe Ser Gly Gly Val
                            280
Gly Thr Val Leu Gly Val Val Thr Gly Val Ile Ile Phe Thr Val Ile
                        295
Asn Tyr Gly Leu Thr Tyr Ile Gly Val Asn Pro Tyr Trp Gln Tyr Ile
                    310
                                         315
Ile Lys Gly Ala Ile Ile Ile Phe Ala Val Ala Leu Asp Ser Leu Lys
Tyr Ala Arg Lys Lys
            340
<210> 5886
<211> 292
<212> PRT
<213> Enterobacter cloacae
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<400> 5886

290

Leu Leu Ile Lys Thr Arg Ser Gln Thr Met Ser Lys Val Lys Thr 10 Ile Thr Arg Glu Ser Trp Ile Leu Ser Thr Phe Pro Glu Trp Gly Ser 20 25 Trp Leu Asn Glu Glu Ile Glu Gln Glu Gln Val Ala Pro Gly Thr Phe 40 Ala Met Trp Trp Leu Gly Cys Thr Gly Ile Trp Leu Lys Ser Glu Gly 55 Gly Ala Asn Ile Cys Val Asp Phe Trp Cys Gly Thr Gly Lys Gln Ser 70 75 His Gly Asn Pro Leu Met Lys Lys Gly His Gln Met Gln Arg Met Ala 85 90 Gly Val Glu Lys Leu Gln Pro Asn Leu Arg Thr Thr Pro Phe Val Leu 100 105 Asp Pro Phe Ala Ile Arg Gln Ile Asp Ala Val Leu Ser Thr His Asp 120 His Asn Asp His Ile Asp Val Asn Val Ala Ala Ala Val Met Gln Asn 135 Cys Ala Asp Asp Val Pro Phe Ile Gly Pro Gln Thr Cys Val Asp Leu Trp Ile Gly Trp Gly Val Pro Lys Glu Arg Cys Ile Val Met Lys Pro 170 Gly Asp Val Val Lys Ile Lys Asp Ile Glu Ile His Ala Leu Asp Ala 185 Phe Asp Arg Thr Ala Leu Ile Thr Leu Pro Ala Asp Gln Lys Ala Ala 200 Gly Val Leu Pro Asp Gly Met Asp Glu Arg Ala Val Asn Tyr Leu Phe 215 220 Lys Thr Pro Gly Gly Ser Leu Tyr His Ser Gly Asp Ser His Tyr Ser 230 235 Asn Tyr Tyr Ala Lys His Gly Asn Glu His Gln Ile Asp Val Ala Leu 245 250 Gly Ser Tyr Gly Glu Asn Pro Arg Gly Ile Thr Asp Lys Met Thr Ser 265 Ala Asp Met Leu Arg Met Ala Glu Ala Leu Lys Thr Gln Met Val Asn 280 Pro Val Gln Gln

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<210> 5887
<211> 268
<212> PRT
<213> Enterobacter cloacae
<400> 5887
His Gln Pro His Arg Asp Cys Pro Leu Cys Ser His Phe Leu Glu Arg
                                    10
Val Met Glu Ile Leu Tyr Asn Val Phe Thr Val Phe Phe Asn Gln Val
            20
                                25
Met Thr Asn Ala Pro Leu Leu Gly Ile Val Thr Cys Leu Gly Tyr
                            40
Ile Leu Leu Arg Lys Ser Val Ser Val Ile Ile Lys Gly Thr Ile Lys
                        55
Thr Ile Ile Gly Phe Met Leu Leu Gln Ala Gly Ser Gly Ile Leu Thr
                    70
                                        75
Ser Thr Phe Lys Pro Val Val Ala Lys Met Ser Glu Val Tyr Gly Ile
                                    90
Asn Gly Ala Ile Ser Asp Thr Tyr Ala Ser Met Met Ala Thr Ile Asp
                                105
Arg Met Gly Asp Ala Tyr Ser Trp Val Gly Tyr Ala Val Leu Leu Ala
                            120
                                                125
Leu Ala Leu Asn Ile Ile Tyr Val Leu Leu Arg Arg Ile Thr Gly Ile
                        135
                                            140
Arg Thr Ile Met Leu Thr Gly His Ile Met Phe Gln Gln Ala Gly Leu
                    150
                                        155
Ile Ala Val Ser Leu Tyr Ile Phe Gly Tyr Pro Met Trp Thr Thr Val
                165
                                    170
Ile Cys Thr Ala Val Leu Val Ser Leu Tyr Trp Gly Ile Thr Ser Asn
            180
                                185
                                                    190
Met Met Tyr Lys Pro Thr Gln Asp Val Thr Asp Gly Cys Gly Phe Ser
       195
                            200
                                                205
Ile Gly His Gln Gln Gln Phe Ala Ser Trp Ile Ala Tyr Lys Val Ala
                        215
                                            220
Pro Tyr Leu Gly Lys Lys Glu Glu Ser Val Glu Asp Leu Lys Leu Pro
                    230
                                        235
Gly Trp Leu Asn Ile Phe His Asp Asn Ile Val Ser Thr Ala Ile Val
               245
                                    250
Met Thr Ile Phe Phe Gly Ala Met Ser Ser His Thr
                                265
<210> 5888
<211> 130
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(130)
<400> 5888
Thr Arg Arg Ser Ser Leu Pro Arg Gly His Asp Met Arg Gly Asp Cys
Arg Arg Cys Gln Pro Ala Ser Val Arg Gly Phe Ile Thr Cys Thr Ser
Glu Asn Ala Asp Pro Arg Ala Asp Arg Glu Glu Pro Met Ile Pro Leu
                            40
Pro Ser Gly Thr Arg Ile Trp Leu Val Ala Gly Val Thr Asp Met Arg
                        55
                                            60
Lys Ser Phe Asn Gly Leu Gly Glu Leu Val Gln His Val Leu Asp Asp
```

Asn Pro Phe Ser Gly His Leu Phe Ile Phe Arg Gly Arg Lys Gly Asp Thr Val Arg Ile Leu Trp Ala Asp Ala Asp Gly Leu Cys Leu Phe Thr 105 Arg Pro Leu Glu Glu Gly Leu Ser Thr Arg Arg Asp Gly Arg Glu Lys 120 Val Xaa 130 <210> 5889 <211> 140 <212> PRT <213> Enterobacter cloacae <400> 5889 Trp Thr Leu Ser Met Ser Asn Thr Leu Gln Pro Arg Arg Ala Arg Ala 10 Ser Tyr Ser Met Asp Phe Lys Leu Ala Leu Val Glu Lys Ser Tyr Gln 25 Pro Gly Ala Cys Val Ala Arg Leu Ala Arg Asp Asn Gly Ile Asn Asp Asn Leu Leu Phe Thr Trp Arg Gln Arg Tyr Arg His Leu Leu Pro Asp 55 Glu Ile Gln Arg Ser Ile Arg Glu Gln Asp Ser Val Ile Pro Val Val 70 75 Leu Pro Asp Met Ala Leu Ser His His Ala Glu Pro His Tyr Glu Pro 90 Ala Ala Pro Ala Cys Arg Glu Ala Met Thr Cys Glu Val Thr Val Gly 105 Gly Ala Ser Leu Arg Leu Ser Gly Asp Leu Ser Pro Ala Leu Leu Lys 120 Thr Leu Ile Arg Glu Leu Thr Gly Arg Ser Arg <210> 5890 <211> 211 <212> PRT <213> Enterobacter cloacae <400> 5890 Ser Gly Ala Val Met Met Asn Lys Leu Gln Glu Arg Tyr Ala Arg Ile Ile Ala Ile Met Asn Asn Lys Gly Gly Pro Gly Lys Thr Ser Ser Ala 20 25 Thr Asn Leu Ala Val His Tyr Ala Arg Ser Gly Lys Arg Thr Leu Leu 40 45 Ile Asp Ser Asp Gln Gln Ala Asn Thr Thr Glu Val Thr Ala Asn Gly 55 Lys Lys Tyr Tyr Ser Met Tyr Gly Pro Thr Ile Cys Asp Leu Tyr Ser 70 75 Asn Ser Arg Phe Asp Ile Arg Asp Val Ile Ile Pro Ala Met Ala Gly 85 90 Asp Ala Pro Ile Pro Asn Leu Asp Leu Ile Pro Ser Asp Pro Thr Phe 100 105 Glu Lys Ile Ile Glu Gln Thr Leu Thr Arg Ser His Arg Glu Lys Ile 120 125 Leu Gly Arg His Leu Glu Lys Val Arg Thr Glu Tyr Asp Tyr Ile Ile 135 140 Ile Asp Cys Ala Pro Gly Leu Asn Ile Ala Thr Gly Asn Ala Ile Phe

155

Ile Ala Asp His Val Leu Val Pro Val Asp Gly Gly Ser Phe Ser Leu

165 170 Ser Gly Leu Glu Ile Met Leu Asp Tyr Met Asp Glu Ile Ser Glu Glu 185 Asp Tyr Ala Arg Phe Ser Val Phe Thr Thr Glu Arg Asp Gly Ser Ala 200 Leu Glu Tyr 210 <210> 5891 <211> 404 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(28) <400> 5891 Thr Cys Phe Ile Leu Gly Ala Asn Met Asp Arg Val Ser His Phe Val 10 Leu Ala Leu Val Val Thr Ala Leu Ala Leu Xaa Val Ser Thr Asp 20 Arg Lys Lys Ile Arg Met Arg Tyr Val Val Gln Leu Leu Val Ile Glu 35 40 Val Leu Leu Ala Trp Phe Phe Leu Asn Ser Asn Val Gly Leu Gly Phe 55 Val Lys Gly Phe Ser Glu Met Phe Glu Lys Leu Gly Phe Ala Asn 70 Glu Gly Thr Asn Phe Val Phe Gly Ser Met Asn Asp Gln Gly Leu Ala 90 Phe Phe Leu Lys Val Leu Cys Pro Ile Val Phe Ile Ser Ala Leu 105 Ile Gly Ile Leu Gln His Ile Arg Val Leu Pro Val Val Ile Arg Ala 120 Ile Gly Phe Leu Leu Ser Lys Val Asn Gly Met Gly Lys Leu Glu Ser 135 140 Phe Asn Ala Val Ser Ser Leu Ile Leu Gly Gln Ser Glu Asn Phe Ile 150 155 Ala Tyr Lys Asp Ile Leu Gly Lys Met Ser Arg Asn Arg Met Tyr Thr 165 170 Met Ala Ala Thr Ala Met Ser Thr Val Ser Met Ser Ile Val Gly Ala 185 Tyr Met Thr Met Leu Glu Pro Lys Tyr Val Val Ala Ala Leu Val Leu 195 200 205 Asn Met Phe Ser Thr Phe Ile Val Leu Ser Leu Ile Asn Pro Tyr Arg 215 220 Val Asp Ala Ser Glu Glu Asn Ile Gln Met Ser Asn Leu His Glu Gly 230 235 Gln Ser Phe Phe Glu Met Leu Gly Glu Tyr Ile Leu Ala Gly Phe Lys 245 250 Val Ala Ile Ile Val Ala Ala Met Leu Ile Gly Phe Ile Ala Leu Ile 260 265 270 Ala Ala Leu Asn Ala Leu Phe Ala Ala Val Leu Gly Ile Ser Phe Gln 280 Gly Ile Leu Gly Tyr Ile Phe Tyr Pro Val Ala Trp Val Met Gly Val 295 300 Pro Ala His Glu Ala Leu Gln Val Gly Ser Ile Met Ala Thr Lys Leu 315 310 Val Ser Asn Glu Phe Val Ala Met Met Asp Leu Gln Lys Ile Ala Ser 330

Thr Leu Ser Pro Arg Ala Glu Gly Ile Leu Ser Val Phe Leu Val Ser

345 Phe Ala Asn Phe Ser Ser Ile Gly Ile Ile Ala Gly Ala Ile Lys Gly 360 Leu Asn Glu Glu Gln Gly Asn Val Val Ser Arg Phe Gly Leu Lys Leu 375 380 Val Tyr Gly Ser Thr Leu Val Ser Val Leu Ser Ala Ser Ile Ala Ala 390 395 Leu Val Leu <210> 5892 <211> 217 <212> PRT <213> Enterobacter cloacae <400> 5892 Asn Leu Glu Ile Pro Ile Pro Gly Trp Lys Ser Asp Trp Arg Asp His Pro Pro Leu Thr Val Leu Phe Pro Val Ile Gly His Leu Asn Leu Ser 25 Asn Arg Leu Asn Leu Lys Leu Glu Lys Leu Leu Met Trp Met Arg 40 4.5 Ser Asn Arg Ser Gly Arg Ala Gly Thr Arg Phe Ser Val Asn Leu Met 55 Pro Leu Thr Leu Met Gln Asn Glu Ile Ala Ala Glu Ile Ile Ala Leu 70 75 Phe Glu Arg Tyr Ala Ile Ala Pro Gln Asn Ile Ile Ile Glu Ile Thr 8.5 90 Glu Glu Gln Ala Phe Ser Asp Ser Gly Ser Ser Ile Lys Asn Ile Gln 105 Gln Leu Arg Asp Tyr Gly Phe Arg Ile Ala Ile Asp Asp Phe Gly Thr 120 125 Gly Tyr Ala Asn Phe Glu Arg Leu Lys Arg Leu Glu Ala Asp Ile Ile 135 140 Lys Ile Asp Gly Cys Phe Val Lys Asp Ile Cys Thr Asp Ser Met Asp 150 155 Ala Met Ile Val Gln Ser Ile Cys Asn Met Ala Lys Thr Lys Ser Leu 170 165 Cys Val Val Ala Glu Tyr Val Glu Thr Ala Glu Gln Arg Glu Met Leu 185 Leu Arg Phe Gly Val Asp Tyr Leu Gln Gly Tyr Leu Ile Gly Lys Pro 195 200 Gln Pro Leu Thr Ala Leu Glu Ala 210 <210> 5893 <211> 291 <212> PRT <213> Enterobacter cloacae <400> 5893 Tyr Met Asp Gln Ala Gly Ile Ile Arg Asp Leu Leu Thr Trp Leu Glu Gly His Leu Asp Gln Pro Leu Ser Leu Asp Asn Val Ala Ala Lys Ala 25 Gly Tyr Ser Lys Trp His Leu Gln Arg Met Phe Lys Asp Val Thr Gly 40 His Ala Ile Gly Ala Tyr Ile Arg Ala Arg Arg Leu Ser Lys Ser Ala 55 Val Ala Leu Arg Leu Thr Ala Arg Pro Ile Leu Asp Ile Ala Leu Gln

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Tyr Arg Phe Asp Ser Gln Gln Thr Phe Thr Arg Ala Phe Lys Lys Gln
Phe Ser Leu Thr Pro Ala Leu Tyr Arg Arg Ser Pro Asp Trp Ser Ser
            100
                                105
Phe Gly Met Arg Pro Pro Leu Arg Leu Gly Glu Phe Ala Met Pro Lys
                            120
Tyr Glu Ile Ile Thr Leu Pro Glu Thr His Leu Val Gly Thr Thr Gln
                        135
Ser Tyr Ser Cys Ser Leu Glu Gln Ile Ser Glu Phe Arg His Gln Met
                    150
Arg Val Gln Phe Trp Arg Glu Phe Leu Ser His Ala Pro Ala Ile Pro
                165
                                    170
Pro Ile Leu Tyr Gly Leu Asn Glu Thr His Pro Ser Gln Glu Lys Asp
            180
                                185
Asp Glu Gln Glu Val Phe Tyr Thr Thr Ala Leu Thr Pro Asp Met Ala
                            200
        195
                                                 205
Asn Gly Tyr Ile His Gly Ser Lys Pro Val Val Leu Glu Gly Gly Glu
    210
                        215
                                             220
Tyr Val Met Phe Ser Tyr Glu Gly Leu Gly Thr Gly Val Gln Glu Phe
                    230
                                        235
Ile Leu Thr Val Tyr Gly Thr Cys Met Pro Met Leu Asn Leu Asn Arg
                245
                                    250
Arg Lys Gly Gln Asp Ile Glu Arg Tyr Tyr Pro Ala Gln Asp Ala Lys
            260
                                265
                                                    270
Pro Glu Glu Gly Pro Ile Asn Leu Arg Met Glu Phe Leu Ile Pro Val
                            280
Arg Arg
    290
<210> 5894
<211> 67
<212> PRT
<213> Enterobacter cloacae
<400> 5894
Leu Met Glu Ser Glu Ala Arg Arg Phe Ile Ala Leu Val Asp Glu Phe
Tyr Glu Arg His Val Lys Leu Val Val Ser Ala Glu Val Pro Leu Tyr
Glu Ile Tyr Gln Gly Glu Arg Leu Lys Ser Glu Phe Gln Arg Cys Leu
Ser Arg Leu Gln Glu Met Gln Ser Glu Glu Tyr Leu Lys Arg Glu His
Met Pro
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<210> 5895
<211> 144
<212> PRT
<213> Enterobacter cloacae
<400> 5895
Gly Pro Pro Thr Arg Pro Val Lys Arg Pro Lys Leu Asp Glu Asp Glu
Ile Gly Gln Arg Leu Leu Ser Ile Pro Cys Val Gly Thr Leu Thr Ala
Ser Thr Ile Ser Thr Glu Ile Gly Asp Gly Lys Gln Tyr Ala Ser Ser
                            40
Arg Asp Phe Ala Ala Ala Thr Gly Leu Val Pro Arg Gln Tyr Ser Thr
                        55
Gly Gly Arg Thr Thr Leu Leu Gly Ile Ser Lys Arg Gly Asn Lys Lys
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75
Ile Arg Thr Leu Leu Val Gln Cys Ala Arg Val Phe Ile Gln Lys Leu
                                    90
Glu His Gln Ser Gly Lys Leu Ala Asp Trp Val Arg Asp Leu Leu Cys
                                105
Arg Lys Ser Asn Phe Val Val Thr Cys Ala Leu Ala Asn Lys Leu Ala
                            120
Arg Ile Ala Trp Ala Leu Thr Ala Arg Gln Gln Thr Tyr Val Ala
   130
                        135
<210> 5896
<211> 294
<212> PRT
<213> Enterobacter cloacae
<400> 5896
Lys Gly Leu Leu Val Met Gln Glu Gln Glu Ile Trp Thr Pro Gln Lys
Ala Ile Arg Leu Thr Lys Ile Cys Asp Thr Phe Ser Glu Ile His
                                25
Gly Thr Glu Arg Phe Pro Val Asn Val Glu Glu Leu Ser Leu Glu Ala
Ala Glu Leu Phe Lys Trp Ala Asp Pro Ile Val Lys Ile Glu Pro Val
                        55
Asp Ile Lys Gly Phe Asp Gly Ala Leu Met Ala Asn Glu Ser Arg Ser
Arg Trp Met Leu Leu Tyr Asn Asn Gly Leu Thr Ser Pro Gly Arg Ile
                85
Arg Phe Thr Gln Ala His Glu Leu Gly His Tyr Ile Leu His Arg Leu
                                105
Ile Arg Asp Glu Phe Arg Cys Ser Ser Asp Asp Met Leu Ser Trp Glu
                            120
       115
Asp Lys Asn Ile Glu Ser Glu Ala Asp Leu Phe Ala Ser Tyr Leu Leu
                        135
                                            140
   130
Met Pro Phe Asn Asp Phe Arg Lys Gln Leu Thr Pro Asp Val Asp Ile
                   150
                                        155
Asp Val Leu Ser Gln Tyr Ala Ile Arg Tyr Gly Val Ser Leu Thr Ala
                                    170
               165
Ala Ala Leu Lys Trp Leu Glu Cys Thr Glu Glu Asn Ala Val Phe Ile
                                185
                                                    190
           180
Leu Ser Arg Asp Gly Tyr Met Lys Trp Ala Phe Ser Ser Pro Ala Ala
                            200
                                                205
Arg His Asn Gly Ala Phe Phe Arg Thr Gln Arg Asn Val Val Ser Ile
                        215
                                            220
Pro Glu Gly Ser Ile Ala Ala Asn Gln Asn Ile Ser Met Glu Arg Ala
                   230
                                       235
Gly Met Lys Ile Pro Ala Ser Ile Trp Phe Pro His Ala Asp Lys Asp
               245
                                   250
Ala Ser Val Arg Glu Met Lys Ile His Ser Glu Gln Tyr Glu Tyr Val
                               265
                                                   270
Ile Thr Leu Leu Ile Leu Ser Arg Lys Thr Thr Val Trp Pro Pro Phe
                           280
His Gly Glu Asp Glu
   290
<210> 5897
<211> 98
<212> PRT
<213> Enterobacter cloacae
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<210> 5898

<211> 62

<212> PRT

<213> Enterobacter cloacae

<400> 5898

Arg Gly Ala Ser Gly Gly Ser Trp Ala Lys Val Leu Thr Thr Asp Gln  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

Lys Arg Glu Thr Val Met Leu Met Cys Asp Ala Asn Gly Leu Ser Gln 20 25 30

Arg Arg Ala Cys Arg Leu Thr Gly Phe Ile Leu Ser Thr Cys Arg Tyr 35 40 45

Glu Ala Gln Arg Pro Ala Ala Asp Ala His Leu Ser Gly Arg 50 55 60

<210> 5899

<211> 171

<212> PRT

<213> Enterobacter cloacae

<400> 5899

Asn Leu Asn Phe Cys His Ile Ser Leu Thr Val Leu Ser Ala Met Asn 1 5 10 15  $\cdot$ 

Ile Thr Glu Leu Val Phe Ile Asp Asp Asp Tyr Asn His Val Val Ile 20 25 30

Met Ser Asp Val Val Gln Arg Leu His Leu Tyr Arg Gln Leu His Tyr 35 40 45

Ala Ser Thr Glu Ala Gly Gly Thr Leu Ile Gly Glu Arg Arg Gly Lys 50 55 60

His Tle Val Ile Thr His Ile Ser Glu Pro Gly Ser Gly Asp Val Arg 65 70 75 80

Ser Arg Thr Arg Ile Glu Arg Lys Gly Glu His His Gln Gln Lys Val

Asp Asp Leu Phe Gln Gln Ser Asp Gly Ser Leu Val Tyr Leu Gly Glu
100 105 110

Trp His Thr His Pro Glu Asp Phe Pro Gln Pro Ser Ser Thr Asp Met
115 120 125

Arg Ser Trp Arg Thr Gly Leu Lys Ala Thr Glu Pro Met Val Leu Leu 130 135 140

Ile Met Gly Arg Lys Gln Ala Trp Cys Gly Lys Lys His Gly Asn Val 145 150 155 160

Ile Lys Lys Leu Glu Glu Lys Asn Asn His

<210> 5900

<211> 374

<212> PRT <213> Enterobacter cloacae

<400> 5900 Ile Met Val Cys His Met Thr Pro Pro Val Ala Leu Phe Lys Gly Cys 10 Val Met Gln Asp Leu His Ser Lys Asp Ser Val Ile Asn His Tyr Ala 20 25 Asp Arg Tyr Gln Cys Tyr Met Pro Ile Asp Val Arg Asn Gly Leu Arg 35 40 Ser Asn Ser Ile Asp Ala Ser Asn Ser Ser Leu Pro Trp Asp Val Thr 55 Leu Pro Leu Val Thr Thr Glu Asp Val Ser Arg Asp Lys Ala Leu Gly 70 75 Ala Phe Val Gly Leu Ala Val Gly Asp Ala Val Gly Thr Thr Leu Glu 90 Phe Lys Lys Arg Asp Ser Glu His Val Ala Asp Met Ile Gly Gly Gly 105 Pro Phe Gln Leu Lys Pro Gly Glu Trp Thr Asp Asp Thr Ser Met Ala 120 Leu Cys Leu Ala Glu Thr Tyr Leu Ser Glu Asn Arg Met His Thr Asp 135 Val Leu Arg Lys Tyr Leu Leu Lys Trp Tyr Leu Asp Gly Glu Asn Ser 150 155 Ser Asn Gly Arg Cys Phe Asp Ile Gly Asn Thr Thr Arg Phe Ala Leu 165 170 Glu Gln Tyr Met Arg Val Gly Pro Ser Trp Tyr Gly Asn Thr Glu Lys 185 His Thr Ala Gly Asn Ala Gly Val Ile Arg Gln Ala Pro Val Ser Ile 200 Phe Arg Arg Lys Ser Leu Arg Ala Ile Tyr Phe Glu Ser Gln Ala Gln 215 Ser Arg Ala Thr His Gly Ala Val Glu Ser Ile Asn Ala Cys Gln Phe 230 235 Leu Gly Leu Val Leu His Tyr Leu Ile Asn Gly Tyr Gln Lys Glu Gly 245 250 Ala Phe Ser Pro His Val Phe Pro Leu Cys Ala Arg Val Met Ile Ile 265 Asn Ala Gly Glu Tyr Lys Gln Lys Thr Arg Asp Gln Ile Arg Ser Ser 280 Gly Tyr Val Ile Asp Thr Leu Glu Ala Ala Met Trp Ser Val Trp Asn 295 300 Thr Asp Asn Phe Arg Asp Ala Ile Leu Leu Ala Ala Asn Leu Ala Asp 310 315 Asp Ala Asp Ser Val Ala Ala Thr Ala Gly Gln Ile Ala Gly Ala Leu 325 330 Tyr Gly Tyr Ser Ala Ile Pro Gln Asp Trp Lys Asp Lys Leu Val Gln 345 350 His Glu Arg Ile Ala Thr Met Ala Gly Lys Leu Phe Asp Arg Ala Pro 360 355 Glu Asp Asn Phe Leu 370

<210> 5901

<211> 83

<212> PRT

<213> Enterobacter cloacae

<400> 5901

Phe Asp Thr Ser Gln Val Arg Met Arg Thr Met Lys Lys Trp Ala Val 1 5 10 15

 Ile
 Ile
 Ser
 Ala
 Val
 Gly
 Leu
 Ala
 Phe
 Ala
 Val
 Ser
 Gly
 Ser
 Ser
 Gly
 Ser
 Gly
 Asp
 Gly
 Arg
 Met
 Ile
 Leu
 Thr
 Asp
 Gly
 Asp
 Gly
 Arg
 Met
 Ile
 Leu
 Thr
 Asp
 Gly
 Arg
 Asp
 Met
 Ile
 Asp
 Arg
 Arg
 Arg
 Arg
 Glu
 Val
 Ser
 Tyr
 Arg
 Arg
 Arg
 Arg
 Arg
 Glu
 Val
 Ser
 Gln
 Ile
 Ile
 Ile
 Ile
 Arg
 A

<210> 5902 <211> 153 <212> PRT <213> Enterobacter cloacae

<400> 5902 Lys Arg Lys Pro Ala Met His Tyr His Arg Ile Pro His Ser Ala Leu 10 Glu Ile Ser Gln Leu Gly Leu Gly Thr Met Thr Phe Gly Glu Gln Asn 25 Ser Glu Ala Asp Ala His Ala Gln Leu Asp Tyr Ala Val Ser Gln Gly 4.0 4.5 Ile Asn Leu Ile Asp Val Ala Glu Met Tyr Pro Val Pro Pro Arg Pro Glu Thr Gln Gly Leu Thr Glu Thr Tyr Val Gly Asn Trp Leu Ala Lys 75 Arg Gly Asn Arg Glu Lys Leu Val Ile Ala Ser Lys Val Ser Gly Pro 85 90 Ser Arg Asn Asn Asp Ala Gly Ile Arg Pro Asn Gln Ile Leu Asp Arg 105 Lys Asn Ile Arg Ala Ala Leu Asp Ala Ser Leu Lys Arg Leu Gln Thr

115
120
125
Asp Tyr Leu Asp Leu Tyr His Val His Trp Pro Gln Arg Pro Thr Asn
130
135
140
Cys Phe Gly Lys Leu Gly Tyr Thr
145
150

<210> 5903 <211> 108 <212> PRT <213> Enterobacter cloacae

<400> 5903

105

<210> 5904 <211> 243

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<212> PRT
<213> Enterobacter cloacae
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<400> 5904 Asn Ile Ser Ser Phe Phe Asn Gln Lys Val Val Ser Met His Ser Leu 10 Ala Pro Leu Leu Ser Pro Pro Val Ser Glu Ala Gln Leu Leu Gln Gln 20 25 Ala Gln Arg Leu Ala Gly Tyr Ser Leu Gly Glu Leu Ala Val Met Ala Gly Leu Thr Ile Pro Asn Asp Leu Lys Arg Asp Lys Gly Trp Ile Gly 55 Val Leu Leu Glu Arg Trp Leu Gly Ala Ser Ala Gly Ser Lys Pro Glu 70 Gln Asp Phe Ala Ala Leu Gly Val Glu Leu Lys Thr Ile Pro Ile Asp Ser Gln Gly Arg Pro Leu Glu Thr Thr Phe Val Cys Val Ala Pro Leu 100 105 Thr Gly Asn Ser Gly Val Thr Trp Glu Thr Ser His Val Arg His Lys 120 125 Leu Lys Arg Val Leu Trp Val Pro Val Glu Gly Asp Arg Gln Ile Pro 135 140 Leu Ala Glu Arg Arg Val Gly Ala Pro Leu Leu Trp Ser Pro Asn Asp 150 155 Glu Glu Glu Arg Leu Leu Ser Gln Asp Trp Glu Glu Leu Met Asp Met 165 170 175 Ile Val Leu Gly Gln Val Glu Arg Ile Thr Ala Arg His Gly Glu Met 185 180 Leu Gln Leu Arg Pro Lys Ala Ala Asn Ser Lys Ala Leu Thr Glu Ala 200 205 Val Cys Ala Gln Gly Glu Pro Ile Leu Thr Leu Pro Arg Gly Phe Tyr 215 220 Leu Lys Lys Asn Phe Thr Gly Ala Leu Leu Ala Arg His Phe Leu Leu 230 235 Lys Thr

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<210> 5905
<211> 125
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<212> PRT

<213> Enterobacter cloacae

<400> 5905

 Arg
 Ser
 Thr
 Lys
 Arg
 Trp
 Ser
 Cys
 Ser
 Pro
 Asn
 Ser
 Cys
 Leu
 Gly
 Phe

 Gly
 Thr
 Leu
 Thr
 Gly
 Lys
 Tyr
 Leu
 Asn
 Gly
 Ala
 Lys
 Pro
 Ala
 Gly
 Ala

 Arg
 Asn
 Thr
 Leu
 Phe
 Ser
 Arg
 Phe
 Thr
 Arg
 Tyr
 Ser
 Gly
 Glu
 Gln
 Thr

 Gln
 Lys
 Ala
 Val
 Ala
 Ala
 Tyr
 Val
 Asp
 Ile
 Ala
 Lys
 Arg
 His
 Gly
 Leu

 Ala
 Ser
 Thr
 Ala
 Leu
 Ala
 Phe
 Val
 Arg
 Arg
 Gln
 Pro
 Phe
 Val

 Ala
 From
 Ala
 Ile
 Ala
 Ile
 Ala
 Ile
 Ala
 Arg
 Arg
 Gln
 Pro
 Phe
 Val
 Arg
 Gln
 Ile
 Ile
 Arg
 Ile
 Ile
 Ile

<211> 118

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<212> PRT
<213> Enterobacter cloacae
<400> 5906
Thr Val Ala Arg Cys Met Pro Ala Gly Ile Val Ile Gly Val Gly Val
                                    10
Leu Phe Phe Ser Leu Gln His Ala Leu Leu Pro Ala Tyr Ala Leu Leu
Leu Leu Ile Gly Met Leu Gly Gly Phe Phe Val Val Pro Leu Asn Ala
                            40
Leu Leu Gln Glu Arg Gly Lys Gln Thr Val Gly Ala Gly Asn Ala Ile
                        55
Ala Val Gln Asn Leu Gly Glu Asn Met Ala Met Leu Leu Met Leu Gly
                    70
Ile Tyr Ser Leu Ala Val Lys Ala Gly Ala Pro Val Val Ala Ile Gly
Val Gly Phe Gly Ala Leu Phe Ala Leu Ala Ile Ser Gly Leu Trp Val
            100
Trp Gln Arg Arg Arg
        115
<210> 5907
<211> 305
<212> PRT
<213> Enterobacter cloacae
<400> 5907
Ser Pro Gly Gly Met Met Arg Met Lys Arg Asn Leu Lys Ala Ile
                                    10
Pro Val Leu Val Ala Gly Leu Phe Thr Ser Gln Leu Ser Ile Ala Ala
                                25
Gly Ser Val Ser Ala Asp Pro His Ala Gly His Asp Met Ser Ala Met
                            40
Gln Met Pro Ala Asp Glu Asn Phe Thr Glu Met Thr Ser Met Glu Pro
                        55
                                            60
Ile Val Thr Glu Ser Arg Thr Pro Ile Pro Pro Val Thr Asp Ala Asp
                    70
                                        75
Arg Lys Ala Ala Phe Gly Asn Leu Gln Gly His Ala Ile His Asp Ser
               85
                                    90
Ala Ile Asn Tyr Leu Val Leu Leu Asp Gln Leu Glu Trp Gln Arg Ser
           100
                               105
                                                    110
Asp Asn Thr Asn Asn Phe Ser Trp Ser Val Asn Ser Trp Ile Gly Gly
                           120
                                                125
Asp Thr Asp Arg Ile Trp Leu Lys Ser Glu Gly Glu Arg Ser Asn Gly
                       135
                                            140
Glu Thr Glu Ala Ala Glu Ala Gln Leu Leu Trp Gly His Ala Val Gly
                   150
                                        155
Pro Trp Trp Asp Leu Val Ala Gly Val Arg Gln Asp Phe Arg Pro Ala
                                    170
Ser Ala Arg Thr Trp Ala Ala Val Gly Phe Gln Gly Leu Ala Leu Tyr
                                185
Asn Phe Glu Ser Glu Ile Thr Gly Phe Val Ser Asn Gly Gly Lys Ala
                            200
Ala Leu Arg Leu Gly Gly Glu Tyr Asp Val Leu Leu Thr Asn Arg Leu
                        215
                                            220
Ile Leu Gln Pro Ser Tyr Glu Val Asn Phe Tyr Ser Gln Asp Asp Glu
                    230
                                        235
Ser Arg Gly Arg Gly Leu Thr Asp Thr Glu Leu Gly Leu Arg
                                    250
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Leu Arg Tyr Glu Ile Arg Arg Glu Phe Ala Pro Tyr Ile Gly Val Ser

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260
                                265
Trp Asn Gln Leu Tyr Gly Lys Thr Ser Asp Met Ala Lys Arg Glu Gly
                            280
                                                285
Glu Lys Asp His Gln Val Val Phe Leu Ala Gly Ala Arg Ile Trp Phe
                        295
                                            300
305
<210> 5908
<211> 140
<212> PRT
<213> Enterobacter cloacae
<400> 5908 .
Arg Thr Asp Ile Lys His Ser Thr Lys Gln Val Asn Lys Met Ser Ile
Leu Asn Lys Ala Ile Leu Thr Gly Gly Leu Val Met Gly Val Ala Phe
                                25
Ser Ala Met Ala His Pro Glu Leu Lys Ser Ser Val Pro Gln Ala Asp
Ser Ala Val Ala Ala Pro Glu Lys Ile Gln Leu Asn Phe Ser Glu Asn
                        55
                                            60
Leu Thr Val Lys Phe Ser Gly Ala Lys Leu Thr Met Thr Gly Met Lys
                    70
                                        75
Gly Met Ser Ser His Ser Pro Met Pro Val Ala Ala Lys Val Ala Pro
                                    90
                85
Gly Ala Asp Pro Lys Ser Met Val Ile Ile Pro Arg Glu Pro Leu Pro
            100
                                105
Ala Gly Thr Tyr Arg Val Asp Trp Arg Ala Val Ser Ser Asp Thr His
                            120
Pro Ile Thr Gly Asn Tyr Thr Phe Thr Val Lys
    130
                        135
<210> 5909
<211> 491
<212> PRT
<213> Enterobacter cloacae
<400> 5909
Lys His Phe Met Gly Val Gln Pro Asp Asp Thr Tyr Val Tyr Thr Phe
                                    10
Lys Val Lys Gln Asn Gly Thr Tyr Trp Tyr His Ser His Ser Gly Leu
                                25
Gln Glu Gln Glu Gly Val Tyr Gly Ala Ile Ile Asp Ala Gly Glu
                            40
                                                45
Pro Glu Pro Phe Thr Tyr Asp Arg Glu His Val Val Met Leu Ser Asp
                        55
Trp Thr Asp Glu Asn Pro His Ser Leu Leu Lys Lys Leu Lys Lys Gln
Ser Asp Tyr Tyr Asn Phe Asn Lys Pro Thr Val Gly Ser Phe Phe Arg
Asp Val Asn Thr Arg Gly Leu Ser Ala Thr Ile Ala Asp Arg Lys Met
                                105
Trp Ala Glu Met Lys Met Asn Pro Thr Asp Leu Ala Asp Val Ser Gly
                            120
Tyr Thr Tyr Thr Tyr Leu Met Asn Gly Gln Ala Pro Leu Lys Asn Trp
                        135
                                            140
Thr Gly Leu Phe Arg Pro Gly Glu Lys Ile Arg Leu Arg Phe Ile Asn
                   150
                                       155
Gly Ser Ala Met Thr Tyr Phe Asp Ile Arg Ile Pro Gly Leu Lys Met
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170

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Thr Val Val Ala Ala Asp Gly Gln Tyr Val Asn Pro Val Thr Val Asp
                                185
Glu Phe Arg Ile Ala Val Ala Glu Thr Tyr Asp Val Ile Val Glu Pro
                            200
Gln Gly Glu Ala Tyr Thr Ile Phe Ala Gln Ser Met Asp Arg Thr Gly
                        215
                                            220
Tyr Ala Arg Gly Thr Leu Ala Thr Arg Glu Gly Leu Ser Ala Ala Val
                    230
                                        235
Pro Pro Leu Asp Pro Arg Pro Leu Leu Thr Met Glu Asp Met Gly Met
                245
                                    250
Gly Gly Met Gly His Asp Met Ala Gly Met Asp His Ser Gln Met Gly
            260
                                265
Gly Met Asp Asn Ser Gly Glu Met Met Ser Met Asp Gly Ala Asp Leu
                            280
                                                285
Pro Asp Ser Gly Thr Ser Ser Ala Pro Met Asp His Ser Ser Met Ala
                        295
                                            300
Gly Met Asp His Ser Arg Met Ala Gly Met Pro Gly Met Gln Ser His
                    310
                                        315
Pro Ala Ser Glu Thr Asp Asn Pro Leu Val Asp Met Gln Ala Met Ser
                                    330
Val Ser Pro Lys Leu Asn Asp Pro Gly Ile Gly Leu Arg Asn Asn Gly
                                345
Arg Lys Val Leu Thr Tyr Ala Asp Leu Lys Ser Arg Phe Glu Asp Pro
                            360
Asp Gly Arg Glu Pro Gly Arg Thr Ile Glu Leu His Leu Thr Gly His
                        375
Met Glu Lys Phe Ala Trp Ser Phe Asn Gly Ile Lys Phe Ser Asp Ala
                    390
                                        395
Ala Pro Val Leu Lys Tyr Gly Glu Arg Leu Arg Ile Thr Leu Ile
                                    410
Asn Asp Thr Met Met Thr His Pro Ile His Leu His Gly Met Trp Ser
                                425
Asp Leu Glu Asp Glu Asn Gly Asn Phe Met Val Arg Lys His Thr Ile
                            440
                                                445
Asp Val Pro Pro Gly Thr Lys Arg Ser Tyr Arg Val Thr Ala Asp Ala
                        455
                                            460
Leu Gly Arg Trp Ala Tyr His Cys His Leu Leu Tyr His Met Glu Met
                    470
Gly Met Phe Arg Glu Val Arg Val Glu Glu
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<210> 5910

<211> 91

<212> PRT

<213> Enterobacter cloacae

<400> 5910

 Ser Asn Ile Met Asn Asp Leu Ile Met Ile Val Ile Arg Phe Leu Leu

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 Tyr Leu Asp Leu Met Val Ile Phe Gly Leu Pro Phe Phe Gln Ile Tyr 20
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<210> 5911

<211> 454 <212> PRT <213> Enterobacter cloacae

435

<400> 5911 Thr Asn Ser Asn Ser Ser Gln Val Asn Phe Tyr Tyr Ile Gln Gly Ser 10 His Ala Ala Leu Ser Gly Gly Phe Met Leu Leu Ala Gly Ala Ile Phe 20 Ile Leu Thr Ile Val Leu Val Ile Trp Gln Pro Lys Gly Leu Gly Ile Gly Trp Ser Ala Ile Phe Gly Ala Ile Leu Ala Leu Ile Ser Gly Val 55 Val His Ile Thr Asp Ile Leu Val Val Trp Asn Ile Val Trp Asn Ala 70 75 Thr Ala Thr Phe Ile Ala Val Ile Ile Ile Ser Leu Leu Leu Asp Glu Ser Gly Phe Phe Glu Trp Ala Ala Leu His Val Ser Arg Trp Gly Asn 100 105 Gly Arg Gly Arg Leu Leu Phe Thr Tyr Ile Val Leu Leu Gly Ala Ala 120 115 Val Ala Ala Leu Phe Ala Asn Asp Gly Ala Ala Leu Ile Leu Thr Pro 135 140 Ile Val Ile Ala Met Leu Leu Ala Leu Gly Phe Ser Lys Ser Ala Thr 150 155 Leu Ala Phe Val Met Ala Ala Gly Phe Ile Ala Asp Thr Ala Ser Leu 170 165 Pro Leu Ile Val Ser Asn Leu Val Asn Ile Val Ser Ala Asp Phe Phe 180 185 190 His Leu Gly Phe Thr Glu Tyr Ala Ser Val Met Val Pro Val Asp Ile 195 200 205 Ala Ile Ile Ala Thr Leu Val Met Leu His Leu Phe Phe Arg Lys 215 220 Asp Ile Pro Pro Thr Tyr Asp Leu Asn Arg Leu Lys Glu Pro Ala Leu 235 230 Ala Ile Lys Asp Pro Ala Thr Phe Arg Thr Gly Trp Ile Val Leu Ile 245 250 Leu Leu Val Gly Phe Phe Val Leu Glu Pro Leu Gly Ile Pro Val 265 Ser Ala Ile Ala Ala Val Gly Ala Ala Ile Leu Phe Phe Val Ala Lys 280 Lys Gly His Ala Ile Asn Thr Gly Lys Val Leu Arg Gly Ala Pro Trp 295 300 Gln Ile Val Ile Phe Ser Leu Gly Met Tyr Leu Val Val Tyr Gly Leu 310 315 Arg Asn Ala Gly Leu Thr Glu Tyr Leu Ser Gly Val Leu Asn Leu Phe 325 330 Ala Asp Lys Gly Leu Trp Ala Ala Thr Phe Gly Thr Gly Phe Leu Thr 345 Ala Phe Leu Ser Ser Ile Met Asn Asn Met Pro Thr Val Leu Ile Gly 360 Ala Leu Ser Ile Asp Gly Ser Thr Ala Ser Gly Val Ile Lys Glu Ala 375 380 Met Ile Tyr Ala Asn Val Ile Gly Cys Asp Leu Gly Pro Lys Ile Thr 390 395 Pro Ile Gly Ser Leu Ala Thr Leu Leu Trp Leu His Val Leu Ser Gln 405 410 Lys Asn Met Thr Ile Thr Trp Gly Tyr Tyr Phe Arg Thr Gly Ile Ile 425 420 430 Met Thr Leu Pro Val Leu Phe Val Thr Leu Ala Ala Leu Ala Leu Arg 440

445

Leu Ser Phe Thr Leu

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450
<210> 5912
<211> 93
<212> PRT
<213> Enterobacter cloacae
<400> 5912
Asp Thr Asp Met Ser Asn Ile Thr Ile Tyr His Asn Pro Ala Cys Gly
                5
                                    10
Thr Ser Arg Asn Thr Leu Glu Met Ile Arg Asn Ser Gly Thr Glu Pro
                                25
Thr Val Ile His Tyr Leu Glu Thr Pro Pro Ser Arg Asp Glu Leu Val
Lys Leu Ile Ala Asp Met Gly Ile Thr Val Arg Ala Leu Leu Arg Lys
Asn Val Glu Pro Phe Glu Ala Leu Gly Leu Ala Glu Asp Arg Phe Thr
Asp Asp Gln Leu Ile Asp Phe Met Val Ser Val Lys
<210> 5913
<211> 112
<212> PRT
<213> Enterobacter cloacae
<400> 5913
Lys Gln Lys Gly His Val Ser Thr Pro Met Met Gln Leu Gln Asp Pro
                                    10
Glu Arg Thr Lys Val Leu Leu Val Thr Leu Pro Glu Thr Thr Pro Val
                                25
           20
Leu Glu Ala Ala Asn Leu Gln Ala Asp Leu Glu Arg Ala Gly Ile His
                                                45
                            40
Pro Trp Gly Trp Ile Ile Asn Asn Ser Leu Ser Ile Ala Glu Thr Arg
                        55
Ser Pro Leu Leu Arg Gln Arg Ser Gln Gln Glu Leu Pro Gln Ile Glu
                                        75
                    70
Ala Val Lys Asn Gln His Ala Thr Arg Val Ala Leu Val Pro Val Leu
                                    90
               85
Ala Ala Glu Pro Thr Gly Ile Asp Lys Leu Lys Gln Leu Ala Gly
                                105
<210> 5914
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 5914
Asp Ser Ile Ala Trp Met Pro Arg Pro Ala Val Val Lys Thr Leu Phe
Ser Ala Glu Arg Glu Gly Gly Pro Leu Thr Glu Ala Ala Cys Trp Ala
His Ala Arg Arg Lys Ile His Asp Val Tyr Ile Ser Thr Arg Thr Ala
Thr Ala Glu Glu Ala Leu Lys Arg Ile Ser Glu Leu Tyr Ala Ile Glu
                        55
Glu Glu Ile Arg Gly Leu Pro Ala Ser Gln Arg Leu Ala Ala Arg Arg
                    70
                                        75
Ser Arg Ser Lys Pro Leu Leu Ile Ser Leu His Asp Trp Leu Val Glu
                                    90
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Lys Arg Ala Thr Leu Ser Lys Ser Arg Leu Gly Glu Ala Phe Ala
                                105
Tyr Ala Leu Asn Gln Trp Asp Ala Leu Cys Tyr Tyr Cys Asp Asp Gly
                            120
                                                125
Leu Ala Glu Pro Asp Asn Asn Ala Ala Glu Arg Ala Leu Arg Ala Val
                                            140
                        135
Cys Leu Gly Lys Lys Asn Tyr Ile Phe Phe Gly Ser Asp His Gly Gly
                    150
                                        155
Glu Arg Gly Ala Leu Leu Tyr Gly Leu Ile Gly Thr Cys Arg Leu Asn
                                    170
Gly Ile Asp Pro Glu Gly Tyr Leu Arg His Ile Leu Ser Val Leu Pro
                                185
Glu Trp Pro Ile Asn Lys Val Ala Glu Leu Leu Pro Trp Asn Val Asp
                            200
       195
Leu Thr Asn Lys
    210
<210> 5915
<211> 142
<212> PRT
<213> Enterobacter cloacae
<400> 5915
Arg Gln Pro Gln Pro Gly Ser Gln Pro Met Gln Thr Gln Leu Val Thr
                                    10
Pro Ser Asn Asp Pro Gly Gln Val Ala Pro Val Glu Pro Glu Pro Val
           20
                                25
Gln Glu Asp Gln Glu Gln Ala Ala Thr Pro Ser Glu Pro Gln Ala Gln
                            40
                                                45
Gln Pro Thr Gly Ile Glu Gln Gln Trp Arg Ser Tyr Arg Val Glu Pro
                        55
Gly Lys Thr Leu Ala Gln Leu Phe Arg Asp His Asn Leu Pro Ala Thr
                    70
                                        75
Asp Val Tyr Ala Met Ala Gln Val Glu Gly Ala Gly Lys Pro Leu Ser
               85
                                    90
Asn Leu Gln Asn Gly Gln Met Val Gln Ile Arg Gln Asn Ala Ser Gly
                                105
                                                   110
Val Val Thr Gly Leu Thr Ile Asp Thr Gly Asn Gly Gln Gln Val Leu
                            120
Phe Thr Arg Gln Pro Asp Gly Ser Phe Ile Arg Ala Arg
                        135
<210> 5916
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 5916
Glu Asp Lys Val Met Gln Val Ile Leu Leu Asp Lys Val Ala Asn Leu
Gly Ser Leu Gly Asp Gln Val Asn Val Lys Ala Gly Tyr Ala Arg Asn
Phe Leu Val Pro Gln Gly Lys Ala Val Pro Ala Thr Lys Lys Asn Val
                            40
Glu Phe Phe Glu Ala Arg Arg Ala Glu Leu Glu Ala Lys Leu Ala Asp
Val Leu Ala Ala Ala Asn Ala Arg Ala Glu Ala Ile Asn Ala Leu Gly
Thr Val Thr Ile Ala Ser Lys Ala Gly Asp Glu Gly Lys Leu Phe Gly
                                    90
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Ser Ile Gly Thr Arg Asp Ile Ala Asp Ala Val Thr Ala Ala Gly Val

105 Lys Val Ala Lys Ser Glu Val Arg Leu Pro Asn Gly Val Leu Arg Thr 120 . Thr Gly Glu His Glu Val Asp Phe Gln Val His Ser Glu Val Phe Ala 135 Lys Leu Val Val Asn Val Val Ala Glu 150 <210> 5917 <211> 82 <212> PRT <213> Enterobacter cloacae <400> 5917 Ile Leu Glu Thr Ser His Met Ala Arg Tyr Phe Arg Arg Arg Lys Phe Cys Arg Phe Thr Ala Glu Gly Val Gln Glu Ile Asp Tyr Lys Asp Ile Ala Thr Leu Lys Asn Tyr Ile Thr Glu Ser Gly Lys Ile Val Pro Ser Arg Ile Thr Gly Thr Arg Ala Lys Tyr Gln Arg Gln Leu Ala Arg Ala 55 Ile Lys Arg Ala Arg Tyr Leu Ser Leu Leu Pro Tyr Thr Asp Arg His 70 Gln <210> 5918 <211> 319 <212> PRT <213> Enterobacter cloacae <400> 5918 Asn Ala Ile Leu Phe Met Arg Phe Val Met Asp Thr Ala Leu Pro Thr 10 Pro Val Phe Ala Arg Arg Asn Val Ala Tyr Ala Cys Ala Thr Leu Cys 25 Cys Leu Leu Trp Gly Ser Ser Tyr Pro Ala Ile Lys Ser Gly Tyr Glu 40 Leu Phe Gln Ile Ala Thr Asp Asp Ile Pro Ser Lys Val Val Phe Ala 55 Gly Tyr Arg Phe Leu Phe Ala Gly Ala Leu Leu Leu Phe Ala Leu 70 75 Ala Gln Arg Lys Pro Ile Gly Arg Leu Thr Pro Thr Gln Phe Gly Gln 85 90 Leu Thr Ile Leu Gly Leu Thr Gln Thr Ser Leu Gln Tyr Thr Phe Phe 105 Tyr Ile Gly Leu Ala Tyr Thr Thr Gly Val Asn Gly Ser Ile Met Asn 120 Ala Thr Gly Thr Phe Phe Ser Val Leu Leu Ala His Phe Ile Tyr His 135 Asn Asp Lys Leu Ser Tyr Asn Lys Thr Leu Gly Cys Val Leu Gly Phe 150 155 Ala Gly Val Met Leu Val Asn Phe His Ser Gly Leu Ser Glu Phe Gln 170 165 Phe Val Trp Lys Gly Asp Gly Phe Val Val Leu Ala Ala Phe Ile Leu 185 190 Ser Ala Ala Thr Leu Tyr Gly Lys Arg Ile Ser Gln Thr Val Asp Pro 200 205 Thr Val Met Thr Gly Trp Gln Leu Gly Ile Gly Gly Ala Ala Leu Val

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Ala Gly Gly Tyr Ala Thr Gly Gly Thr Leu Glu Val His Ser Met Lys
                                        235
                    230
Ala Val Ala Val Leu Gly Tyr Leu Thr Leu Leu Ser Ser Val Ala Phe
                245
                                    250
Ala Leu Trp Ser Ala Leu Leu Lys Val Asn Arg Val Ser Met Ile Ala
                                265
Pro Phe Asn Phe Val Ile Pro Val Ala Gly Thr Val Leu Ser Ala Ile
                            280
                                                 285
Phe Leu Gly Asp Asn Ile Met Asp Ile Lys Tyr Ala Ile Ala Leu Val
                        295
                                            300
Leu Val Cys Ser Gly Ile Trp Trp Val Asn Lys Arg Arg Ala
                    310
                                         315
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<210> 5919

<211> 95

<212> PRT

<213> Enterobacter cloacae

<400> 5919

<210> 5920

<211> 291

<212> PRT

<213> Enterobacter cloacae

<400> 5920

Pro Thr Ser Tyr Cys Val Ser Asn Thr Thr Cys Asn Arg Val Ser Tyr Arg Arg Phe Pro Thr Ser Glu Arg Asp Ile Met Phe Leu Val Asp Ser 25 His Cys His Leu Asp Gly Leu Asp Tyr Gln Ser Leu His Lys Asn Val 40 Asp Asp Val Leu Ala Lys Ala Ala Ala Arg Asp Val Lys Phe Cys Leu 55 60 Ala Val Ala Thr Thr Leu Pro Gly Tyr Arg Ser Met Arg Glu Leu Val 70 75 Gly Glu Arg Asp Asn Val Val Phe Ser Cys Gly Val His Pro Leu Asn 8.5 90 Gln Asp Glu Ala Tyr Asp Val Glu Asp Leu Arg Arg Leu Ala Ala Glu 105 110 Glu Gly Val Val Ala Met Gly Glu Thr Gly Leu Asp Tyr Leu Tyr Thr 120 125 Pro Glu Thr Lys Pro Arg Gln Gln Glu Ser Phe Arg Asn His Ile Arg 135 Ile Gly Arg Glu Leu Asn Lys Pro Val Ile Val His Thr Arg Asp Ala 155 Arg Ala Asp Thr Leu Ala Ile Leu Arg Glu Glu Lys Val Thr Asp Cys 170 Gly Gly Val Leu His Cys Phe Thr Glu Asp Arg Glu Thr Ala Gly Lys

180 185 Leu Leu Asp Leu Gly Phe Tyr Ile Ser Phe Ser Gly Ile Val Thr Phe 195 200 205 Arg Asn Ala Glu Gln Leu Arg Asp Ala Ala Arg Tyr Val Pro Leu Asp 215 220 Arg Ile Leu Val Glu Thr Asp Ser Pro Tyr Leu Ala Pro Val Pro His 230 235 Arg Gly Lys Glu Asn Gln Pro Ala Met Thr Arg Asp Val Ala Glu Tyr 250 Met Ala Val Leu Lys Gly Val Ser Ile Glu Glu Leu Ala Arg Val Thr 265 Thr Glu Asn Phe Ala Ser Leu Phe His Ile Asp Pro Ala Arg Leu Gln 280 Ser Val 290 <210> 5921 <211> 489 <212> PRT <213> Enterobacter cloacae <400> 5921 Lys Lys His Lys Tyr Ser Gly Ala Leu Ser Ile Met Phe Lys Asn Ala 10 Phe Ala Asn Leu Gln Lys Val Gly Lys Ser Leu Met Leu Pro Val Ser 20 25 Val Leu Pro Ile Ala Gly Ile Leu Leu Gly Val Gly Ser Ala Asn Phe 40 45 Ser Trp Leu Pro Ala Val Val Ser His Val Met Ala Glu Ala Gly Gly 55 60 Ser Val Phe Ala Asn Met Pro Leu Ile Phe Ala Ile Gly Val Ala Leu 70 75 Gly Phe Thr Asn Asn Asp Gly Val Ser Ala Leu Ala Ser Val Val Ala 85 90 Tyr Gly Ile Met Val Lys Thr Met Ala Val Val Ala Pro Leu Val Leu 100 105 110 His Leu Pro Ala Glu Glu Ile Ala Ala Lys His Leu Ala Asp Thr Gly 120 125 Val Leu Gly Gly Ile Ile Ser Gly Ala Ile Ala Ala Tyr Met Phe Asn 135 140 Arg Phe Tyr Arg Ile Lys Leu Pro Glu Tyr Leu Gly Phe Phe Ala Gly 150 155 Lys Arg Phe Val Pro Ile Ile Ser Gly Leu Ala Ala Ile Phe Thr Gly 170 Val Val Leu Ser Phe Ile Trp Pro Pro Ile Gly Thr Ala Ile Gln Thr 185 Phe Ser Gln Trp Ala Ala Tyr His Asn Pro Val Val Ala Phe Gly Ile 200 Tyr Gly Phe Ile Glu Arg Cys Leu Val Pro Phe Gly Leu His His Ile 215 220 Trp Asn Val Pro Phe Gln Met Gln Ile Gly Glu Tyr Thr Asn Ala Ala 230 235 Gly Gln Val Phe His Gly Asp Ile Pro Arg Tyr Met Ala Gly Asp Pro 245 250 Thr Ala Gly Lys Leu Ser Gly Gly Phe Leu Phe Lys Met Tyr Gly Leu 265 260 Pro Ala Ala Ala Ile Ala Ile Trp His Ser Ala Lys Pro Glu Asn Arg 280 285 Ala Lys Val Gly Gly Ile Met Ile Ser Ala Ala Leu Thr Ser Phe Leu 295

Thr Gly Ile Thr Glu Pro Ile Glu Phe Ser Phe Met Phe Val Ala Pro

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310
                                        315
Ile Leu Tyr Ile Ile His Ala Val Leu Ala Gly Leu Ala Phe Pro Ile
                325
                                    330
Cys Ile Leu Leu Gly Met Arg Asp Gly Thr Ser Phe Ser His Gly Leu
           340
                                345
Ile Asp Phe Ile Val Leu Ser Gly Asn Ser Ser Lys Leu Trp Leu Phe
                            360
Pro Ile Val Gly Ala Gly Tyr Ala Val Val Tyr Tyr Thr Val Phe Arq
                        375
Val Leu Ile Lys Ala Leu Asp Leu Lys Thr Pro Gly Arg Glu Asp Ala
                    390
                                        395
Thr Glu Asp Ser Lys Ala Gly Ala Thr Ser Glu Met Ala Pro Ala Leu
                                    410
Val Ala Ala Phe Gly Gly Lys Glu Asn Ile Thr Asn Leu Asp Ala Cys
                                425
                                                    430
Ile Thr Arg Leu Arg Val Ser Val Ala Asp Val Ala Lys Val Asp Gln
        435
                            440
                                                445
Pro Gly Leu Lys Lys Leu Gly Ala Ala Gly Val Val Ala Gly Ser
                        455
                                            460
Gly Val Gln Ala Ile Phe Gly Thr Lys Ser Asp Asn Leu Lys Thr Glu
                    470
                                        475
Met Asp Glu Tyr Ile Arg Asn Asn
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<210> 5922

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 5922

Asp Ser Asn Ala Leu Ile Gly Ser Ile Gly Val Arg Met Asp His Trp 10 Asn Leu Ser Glu Ile Met Ser Thr Val Gly Val Lys Asn Glu Pro Leu 20 25 Thr Ala Gly Glu Phe Lys Asp Ala Leu Asp Pro Phe His Pro Leu Ser 40 Asp Ser Thr Arg Glu Phe Met Gln Lys Glu Ile Leu Asn Thr Met His 55 Glu Lys Phe Ile Thr Asp Val Glu Leu Gly Arg Gly Lys Lys Leu Leu 70 75 Ser Arg His Asp Ala Asp Ala Val Ser Leu Tyr Ser Gly Arg Val Trp 90 Pro Thr Pro Gln Ala Val Lys Tyr Gly Leu Val Asp Gly Asp Leu Thr 105 Ser Val Glu Ile Arg Thr Arg Leu Ser Lys Met Tyr Ser Thr Asp Thr 120 Phe Lys Asn Tyr Asn Glu Pro His Arg Asn Leu Arg Ser Ala Leu Gly 135 140 Met Leu Met Ser Leu Ser Ser Asn Ile Glu Ser Leu Thr Gly Thr Thr 150 155 Thr Arg Leu Val Glu Ser Val Asn Ala Thr Ser Tyr Pro Ser Val Arg 165 170

<sup>&</sup>lt;210> 5923

<sup>&</sup>lt;211> 246

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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Gly Asn Met Asp Ala Phe Asn Leu Leu Trp Ser Ile Thr Gly Val Ala
Phe Ile Ile Leu Ile Phe Val Val Leu Cys Leu Leu Gly Phe Met
                                25
Thr Ser Ala Ile Ala Glu Arg Arg Thr Ala Lys Ala Ile Glu Ser Gly
Leu Pro Glu Glu Ala Gln Gly Leu Leu Ser Asp Leu Thr Phe Gln Leu
Ser Ala His Ser Thr Thr Gln Val Asp His Ile Leu Val Ala Pro His
                    70
                                        75
Gly Ile Tyr Val Ile Glu Gln Lys Asn Tyr Val Gly Lys Leu Tyr Gly
                85
                                    90
Thr Leu Glu Glu Ser His Trp Arg Lys Trp Thr Gln Ser Arg Thr Leu
            100
                                105
Lys Leu Gln Asn Pro Phe Lys Gln Asn Gln Gly His Ile Arg Ala Ile
                            120
Gln Ser Ala Leu Lys Ala Arg Glu Leu Glu Cys Ile Asn Val Val Ile
                        135
                                            140
Ile Asn Gly Arg Cys Lys Phe Asp Gly Ile Lys Pro Glu Trp Leu Cys
                    150
                                        155
Met Gly Met Asp Asp Phe Ile His Lys Val Lys Gln Arg Arg Gly Leu
                165
                                    170
Arg Leu Phe Thr Pro Glu Ser Val Gln His Ile Cys Ser Val Leu Lys
                                185
Ser Thr Arg Lys Ser Pro Gly Leu Tyr Thr Asp Leu Thr His Ile His
                            200
Asn Ile Thr Thr Lys Tyr Lys Ala Pro Met Lys Phe Glu Gln Arg Val
                        215
                                            220
Thr Tyr Ile Leu Leu Asn Phe Ile His Tyr Leu Trp Ala Ser Leu Phe
Thr Lys Gln Lys Pro
<210> 5924
<211> 275
<212> PRT
<213> Enterobacter cloacae
<400> 5924
Arg Gly Met Pro Ala Arg Val Ser Arg Pro Gly Ile Thr Gly Arg Ser
                                    10
His Leu Met Ser Gln Asn Thr Leu Lys Val His Asp Leu Asn Glu Asp
                                25
Ala Glu Phe Asp Glu Asn Gly Ala Glu Ala Phe Asp Glu Lys Ala Leu
                            40
                                                45
Val Glu Glu Pro Ser Asp Asn Asp Leu Ala Glu Glu Glu Leu Leu
                        55
                                            60
Ser Gln Gly Ala Thr Gln Arg Val Leu Asp Ala Thr Gln Leu Tyr Leu
                    70
                                        75
Gly Glu Ile Gly Tyr Ser Pro Leu Leu Thr Ala Glu Glu Glu Val Tyr
               85
                                    90
Phe Ala Arg Arg Ala Leu Arg Gly Asp Val Ala Ser Arg Arg Met
                                105
Ile Glu Ser Asn Leu Arg Leu Val Val Lys Ile Ala Arg Arg Tyr Gly
                            120
Asn Arg Gly Leu Ala Leu Leu Asp Leu Ile Glu Glu Gly Asn Leu Gly
                        135
                                            140
Leu Ile Arg Ala Val Glu Lys Phe Asp Pro Glu Arg Gly Phe Arg Phe
                   150
                                       155
Ser Thr Tyr Ala Thr Trp Trp Ile Arg Gln Thr Ile Glu Arg Ala Ile
                                    170
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Met Asn Gln Thr Arg Thr Ile Arg Leu Pro Ile His Ile Val Lys Glu 185 Leu Asn Val Tyr Leu Arg Thr Ala Arg Glu Leu Ser His Lys Leu Asp 200 His Glu Pro Ser Ala Glu Glu Ile Ala Glu Gln Leu Asp Lys Pro Val 215 220 Asp Asp Val Ser Arg Met Leu Arg Leu Asn Glu Arg Ile Thr Ser Val 235 230 Asp Thr Pro Leu Gly Gly Asp Ser Glu Lys Ala Leu Leu Asp Ile Leu 245 250 Ala Asp Glu Lys Asp Asn Gly Pro Glu Asp Thr Thr Gln Asp Asp Asp 265 Met Lys Gln 275 <210> 5925 <211> 365 <212> PRT <213> Enterobacter cloacae <400> 5925 Arg Arg Val Ala Ala Leu Ser Leu Val Ser Leu Trp Leu Ala Gly Cys 10 Thr Ser Ser Asn Asn Ala Pro Ala Pro Val Ser Ser Val Asn Gly Thr 25 Ser Gly Ser Gly Asn Thr Ser Ser Gly Met Leu Ile Thr Pro Pro Pro 40 45 Lys Met Gly Thr Ser Thr Ala Gln Gln Thr Pro Gln Ile Gln Pro Val 55 Gln Arg Pro Val Thr Gln Pro Thr Gln Ile Gln Pro Val Glu Gln Pro 75 70 Val Gln Thr Glu Asn Gly Arg Ile Val Tyr Asn Arg Lys Tyr Gly Asn 90 8.5 Ile Pro Lys Gly Ser Tyr Thr Gly Gly Ser Thr Tyr Thr Val Lys Arg 100 105 110 Gly Asp Thr Leu Phe Tyr Ile Ala Trp Ile Thr Gly Asn Asp Phe Arg 115 120 125 Asp Leu Ala Gln Arg Asn Asn Val Gln Ala Pro Tyr Ala Leu Glu Val 135 140 Gly Gln Thr Leu Gln Val Gly Asn Ala Thr Gly Thr Pro Leu Thr Pro 145 155 150 Gly Asn Thr Val Ser Ala Ala Asp Val Thr Ala Gln Asn Asn Ser Val 165 170 Thr Pro Ala Gln Lys Thr Thr Val Val Ala Ser Gln Pro Val Ile 185 180 Thr Tyr Ser Glu Asp Ser Gly Asp Gln Ser Ala Asn Lys Met Leu Pro 200 205 Asn Asn Lys Gly Thr Ala Thr Val Val Thr Ala Pro Thr Thr Ala Pro 215 220 Val Val Ser Ser Thr Val Pro Thr Ala Ser Ser Gln Asn Ala Ser Ser 230 235 Ser Ile Thr Thr Trp Arg Trp Pro Thr Asp Gly Lys Ile Ile Glu Asn 245 250 Phe Ala Thr Ser Glu Gly Gly Asn Lys Gly Ile Asp Ile Ala Gly Ser 265 Lys Gly Gln Ala Ile Ile Ala Thr Ala Asp Gly Arg Val Val Tyr Ala 280 285 Gly Asn Ala Leu Arg Gly Tyr Gly Asn Leu Ile Ile Lys His Asn 295 300 Asp Asp Tyr Leu Ser Ala Tyr Ala His Asn Asp Thr Met Leu Val Arg

310

Glu Gln Gln Glu Val Lys Ala Gly Gln Lys Ile Ala Thr Met Gly Ser 325 330 Thr Gly Thr Ser Ser Thr Arg Leu His Phe Glu Ile Arg Tyr Lys Gly 345 Lys Ser Val Asn Pro Leu Gln Tyr Leu Pro Gln Arg 360 <210> 5926 <211> 130 <212> PRT <213> Enterobacter cloacae <400> 5926 Ser Leu Leu Asn Phe Leu Ile Pro Lys Asn Lys Gly Ala Ile Ser Pro Gln Ile Lys Phe His Gln Val Thr Arg Thr Lys Lys Phe Gln Arg Asp Gln Arg Ile Gln Thr Ser Ala Arg Gly Asn Tyr Gly Arg Glu Gln Thr Glu Glu Glu Pro Pro Lys Gly Thr Ala Pro Glu Lys Pro Gln Ala Ala 55 Gln Arg Arg Glu Lys Arg Lys Thr Glu Lys Gly His Gln Asn Arg Gly 70 75 Glu Lys Leu Ile Ser Glu Gln Asn Arg Ser Pro Asn Glu Lys Arg Asn 90 Ile Ser Ala Glu Lys Lys Arg Glu Ser Ala Gln Leu Val Leu Asp Gln 105 Asn His Thr Val Ala Ala Val Leu His Arg Arg Gly Arg Lys Glu Thr Arg Phe 130 <210> 5927 <211> 605 <212> PRT <213> Enterobacter cloacae <400> 5927 Val Ser Pro Ser Glu Arg Thr Leu Glu Gly Lys Glu Trp Cys Ala Gly Asn Thr Asn Gly Asp Ser Gly Lys Ser Leu Lys Val Asn Ile Gly Gly Lys Lys Ser Trp Ala Asp Phe Ala Ser Gly Asp Ser Gly Asp Leu Leu 40 Asp Leu Trp Val Leu Val Arg Asn Cys Gln Leu His Asp Ala Met Arg Glu Ala Lys Glu Phe Leu Gly Leu Lys Asp Asp His His Phe Glu 70 75 Ala Lys Lys Leu Phe Ser Arg Pro Thr Lys Lys Gly Val Lys Ser 85 90 Ala Ser Lys Cys Tyr Asp Tyr Leu Ala Ser Arg Gly Ile Thr Arg Glu 105 100 Thr Ala Asp Arg Phe Lys Val Thr Asp Ala Val Val Trp Tyr His Asp 120 125 Glu Ser Arg Glu Val Pro Ala Val Ala Phe Pro Tyr Ile Arg Asn Gly 135 140 Glu Leu Leu Gln Val Lys Arg Ile Gly Thr Glu Arg Pro Asn Gly Lys 150 155 Lys Leu Ile Met Ala Glu Ala Asp Cys Glu Pro Cys.Leu Phe Gly Trp 170

Gln Ala Leu Asp Lys Asn Thr Arg Leu Val Val Leu Cys Glu Gly Glu

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180
                                185
Ile Asp Cys Met Thr Phe Thr Gln Leu Gly Tyr Asp Ala Leu Ser Val
        195
                            200
                                                205
Pro Phe Gly Gly Gly Lys Gly Ala Lys Gln Gln Trp Ile Glu Tyr Glu
                        215
                                            220
Tyr His Asn Leu Asp Arg Phe Gln Glu Ile Trp Leu Cys Leu Asp Asn
                    230
                                        235
Asp Asn Val Gly Arg Glu Ala Ala Lys Glu Ile Ala Arg Arg Leu Gly
                245
                                    250
Glu His Arg Cys Arg Met Val Glu Leu Pro His Lys Asp Ile Asn Asp
                                265
Cys Leu Met Asn Gly Met Asp Ser Asp Ser Ile Leu Glu Tyr Met Glu
                            280
Arq Ala Lys Phe Phe Asp Pro Asp Glu Leu Cys Ser Ala Gly Asp Leu
                        295
Leu Gln Glu Thr Ile Glu Ala Phe Glu His Arg Asp Thr Gly Leu Phe
                    310
                                        315
305
Thr Ser Pro Trp Ala Ser Leu Asn Asn Asn Phe Lys Phe Arg Ala Gly
                325
                                    330
Glu Leu Thr Leu Val Asn Gly Val Asn Gly His Gly Lys Thr Glu Leu
                                345
            340
                                                     350
Val Gly His Ile Ala Ile Asp Ala Met Ser Gln Gly Val Arg Thr Cys
        355
                            360
Ile Ala Ser Leu Glu Leu Lys Pro Gly Lys Met Leu Ala Arg Leu Thr
                        375
                                            380
Arg Gln Thr Ile Cys Thr Ser Ser Pro Lys Arg Glu Glu Ile Ile Met
                    390
                                        395
Thr Asn Glu Trp Phe Ser Asp Arg Leu Trp Val Phe Lys Leu Thr Gly
                405
                                    410
Thr Ala Lys Ala Asp Arg Leu Leu Glu Ile Phe Ala Tyr Ala Arg Arg
            420
                                425
Arg Tyr Gly Ile Glu Leu Phe Val Ile Asp Asn Leu Ala Lys Cys Gly
                            440
       435
                                                445
Leu Asp Glu Glu Asp Tyr Thr Gly Gln Lys Asp Phe Ile Asp Thr Leu
                        455
                                            460
Cys Asp Phe Lys Asn Glu His Asn Cys His Val Leu Leu Val Thr His
                    470
                                        475
Ala Arg Lys Thr Asn Asp Ser Ala Pro Thr Gly Lys Met Asp Val Lys
               485
                                    490
Gly Thr Gly Ala Leu Thr Asp Met Pro Asp Asn Val Met Ala Val Trp
            500
                                505
                                                 • 510
Arg Asn Ile Pro Arg Glu Leu Ala Gln Arg Lys Ala Asp Arg Met Gly
                            520
                                                525
Tyr Glu Ser Leu Asp Lys Asp Glu Gln Ala Ala Ile Asn Leu Pro Ala
                       535
                                            540
Ser Met Ile Arg Leu Leu Lys Gln Arg Glu Gly Glu Gly Trp Ile Gly
                    550
                                        555
Asp Ile Gly Ala Asn Phe Asp Ser Arg Ser His Gln Phe Leu Glu Gly
                565
                                    570
Glu Lys Lys Pro Phe Asn Tyr Leu Val Gly Lys Pro Gln Ser Glu Leu
                                585
Asp Leu Glu Trp Glu Ala Ser Asn Val Thr Arg Val
                            600
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<400> 5928

Ala Ser Ser Arg Leu His Asn His Ala Ser Ser Gly Val Cys Val Ser

<sup>&</sup>lt;210> 5928

<sup>&</sup>lt;211> 343

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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10
Ser Lys Ile Leu Gly Asn Val Trp Asp Ala Cys Ala Ala His Asp Ile
                                25
Lys Gly Ala Lys Leu Val Ile Met Ala Arg Leu Ala Asp Tyr Ser Asn
Asp Asp Gly Val Cys Tyr Pro Ser Val Glu Thr Ile Cys Arg Gln Leu
                        55
Gly Leu Gly Glu Ser Thr Val Arg Thr Ala Ile Ala Glu Leu Glu Ser
Ser Gly Trp Leu Arg Arg Glu Ala Arg Arg Lys Gly Asn Arg Asn Thr
                                    90
Ser Asn Leu Tyr His Leu Asn Ala Glu Arg Leu Glu Ala Leu Ala Arg
                                105
Ile Glu Glu Asp Lys Val Ala Ala Leu Lys Gln Gln Arg Arg Thr Asn
                            120
Gly Phe His Pro Ser Asp Ser Asp Pro Ser Lys Thr Glu Pro Ser Asp
                        135
                                            140
Ser Gly Phe Ser Asn Gly Phe His Pro Ser Asp Ser Asp Lys Asn Gly
                    150
                                        155
Val Phe Thr Arg Gln Asn Leu Thr Pro Asp Pro Gln Val Asn Ser Lys
                                    170
                165
His Asp Pro Gln Val Asn Ser Lys His Asp Pro Gln Val Asn Ser Lys
            180
                                185
Gln Glu Ser Gln Asp Ile Gly Val Cys Gly Lys Ala Ser Ser Glu Asn
                            200
Arg Ser Ser Lys Glu Asn Tyr Ser Asn Glu Phe Glu Lys Ala Trp Gln
                        215
                                            220
Ala Tyr Pro Lys Arg Ala Gly Gly Asn Ser Lys Ala Ala Ala Trp Lys
                    230
                                        235
Ala Trp Lys Ala Arg Ile Lys Asp Gly Val Asn Thr Glu Ala Met Leu
                                    250
               245
Ala Gly Val Asn Arg Tyr Ala Gly Tyr Val Arg Ala Thr Gly Ser Ala
                                265
                                                     270
Gly Thr Gln Tyr Val Lys Gln Ala Ala Thr Phe Phe Gly Pro Asp Lys
                            280
                                                285
His Phe Asp Glu Pro Trp Leu Val Glu Thr Gln Glu Asn Lys Val Pro
                       295
                                            300
Thr Arg Gln Asp Gln Ser Arg Tyr Glu Trp Tyr Ala Lys Ser Asp Asp
                    310
                                        315
Gly Ser Ala Glu Val Phe Ile Asn Gln Ser Ala Ile Asp Arg Met Asn
                325
Arg Gly Gly Tyr Arg Pro
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<210> 5929

<211> 182

<212> PRT

<213> Enterobacter cloacae

## <400> 5929

 Ser
 Pro
 Cys
 Pro
 Arg
 Ala
 Ala
 Ala
 Asp
 Arg
 Leu
 Asn
 Thr
 Ser
 Asn
 Asn

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<400> 5932

90 8.5 Gly Phe Phe Gly Ala Pro Thr Thr Leu Ala Pro Gly Val Ile Glu Ser 100 105 110 Asn Glu Pro Ala Pro Ala Leu Ala Pro Val Val Ala Ala Pro Ala Ala 120 Gln Pro Ala Pro Val Thr Ala Pro Cys Cys Tyr Ala Asp Cys Gly Ala 135 140 Cys Asp Gly Glu Arg Gln Leu Arg Gly Ser Gly Trp Arg Cys Gln Arg 150 155 Ser Asp Pro Cys Arg Ala Ile Ser Ala Ala Phe Lys Gln Thr Val Trp 165 170 Arg Ala Arg Pro Arg 180 <210> 5930 <211> 106 <212> PRT <213> Enterobacter cloacae <400> 5930 Asn Ser Arg Pro Val Ala Gly Val Ile Ile Phe Tyr Thr His Ala Gly 10 Ala Asp Met Lys Thr Lys Leu Asn Glu Leu Glu Phe Pro Thr Pro 20 25 Phe Thr Tyr Lys Val Met Gly Leu Ala Lys Pro Glu Leu Val Asp Gln 40 4.5 Val Val Glu Val Val Gln Arg His Ala Pro Gly Asp Tyr Ser Pro Ser 55 60 Val Lys Pro Ser Ser Lys Gly Asn Tyr His Ser Val Ser Ile Thr Ile 70 75 Thr Ala Thr His Ile Glu Gln Val Glu Thr Leu Tyr Glu Glu Leu Gly 85 90 Asn Ile Glu Ile Val Arg Met Val Leu 100 <210> 5931 <211> 90 <212> PRT <213> Enterobacter cloacae <400> 5931 Pro Arg Pro Ala Ala Thr Gln Thr Ala Ala Pro Ala Thr Ala Ser Gly 10 Ser Tyr Val Val Gln Val Gly Ala Val Ser Asp Arg Thr Arg Ala Glu 25 Gln Tyr Gln Gln Arg Leu Ser Lys Gln Phe Gly Val Pro Gly Arg Val Glu Gln Asn Gly Ala Val Trp Arg Ile Gln Met Gly Pro Phe Ala Ser Lys Ser Gln Ala Ala Ser Leu Gln Gln Arg Leu Gln Ser Glu Ala Gln 75 70 Leu Gln Ser Phe Ile Ala Val Ala Lys 85 <210> 5932 <211>. 435 <212> PRT <213> Enterobacter cloacae

His Ser His Asp Glu Ser Arg Met Pro Ala Arg Ile Ala Phe Ala Ile

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10
Val Arg His Phe Phe Asn Ser Ile Thr Asp Val Val Leu Thr Met
            20
                                25
Lys Thr Thr Phe Ser Ala Arg Phe Val Gln Arg Met Ala Leu Thr Thr
                            40
Ala Leu Cys Ala Ala Ala Phe Ser Ala Ala His Ala Asp Asp Leu Asn
                        55
Ile Lys Thr Met Ile Pro Gly Val Pro Gln Ile Asp Ala Glu Ser Tyr
Ile Leu Ile Asp Tyr Asn Ser Gly Lys Val Leu Ala Glu Gln Asn Ala
                85
                                    90
Asp Ala Arg Arg Asp Pro Ala Ser Leu Thr Lys Met Met Thr Ser Tyr
                                105
            100
Val Ile Gly Gln Ala Met Lys Ala Gly Lys Phe Lys Glu Thr Asp Leu
                            120
                                                125
Val Thr Ile Gly Asn Asp Ala Trp Ala Thr Gly Asn Pro Val Phe Lys
                        135
                                            140
Gly Ser Ser Leu Met Phe Leu Lys Pro Gly Met Gln Val Pro Val Ser
                    150
                                        155
Gln Leu Ile Arg Gly Ile Asn Leu Gln Ser Gly Asn Asp Ala Cys Val
                165
                                    170
Ala Met Ala Asp Phe Ala Ala Gly Ser Gln Asp Ala Phe Val Gly Leu
            180
                                185
Met Asn Ser Tyr Val Ser Ala Leu Gly Leu Lys Asn Ser His Phe Gln
                            200
Thr Val His Gly Leu Asp Ala Glu Gly Gln Tyr Ser Ser Ala Arg Asp
                        215
                                            220
Met Ala Leu Ile Gly Gln Ala Leu Ile Arg Asp Val Pro Asn Glu Tyr
                    230
                                        235
Ser Ile Tyr Lys Glu Lys Glu Phe Thr Phe Asn Gly Ile Arg Gln Thr
                245
                                    250
Asn Arg Asn Gly Leu Leu Trp Asp Asn Ser Leu Asn Val Asp Gly Ile
                                265
Lys Thr Gly His Thr Asp Lys Ala Gly Tyr Asn Leu Val Ala Ser Ala
                            280
Thr Glu Gly Gln Met Arg Leu Ile Ser Ala Val Met Gly Gly Arg Thr
                        295
Phe Lys Gly Arg Glu Thr Glu Ser Lys Leu Leu Thr Trp Gly Phe
                    310
                                        315
Arg Phe Phe Glu Thr Val Asn Pro Leu Lys Ala Gly Lys Glu Phe Ala
                                    330
Ser Glu Pro Val Trp Phe Gly Asp Asn Asp Arg Ala Ser Leu Gly Val
                                345
Asp Lys Asp Leu Tyr Leu Thr Ile Pro Arg Gly Arg Met Lys Asp Leu
        355
                            360
Lys Ala Ser Tyr Val Leu Asn Thr Thr Glu Leu His Ala Pro Leu Gln
                        375
                                            380
Lys Asn Gln Val Val Gly Thr Ile Asn Phe Gln Leu Asp Gly Lys Thr
                    390
                                        395
Ile Asp Gln Arg Pro Leu Val Val Leu Glu Glu Ile Pro Glu Gly Asn
               405
                                    410
Phe Phe Gly Lys Ile Ile Asp Tyr Ile Lys Leu Met Phe His His Trp
                                425
Phe Gly
        435
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<210> 5933

<211> 229

<212> PRT

<213> Enterobacter cloacae

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<400> 5933
Tyr Thr Pro Arg Tyr Leu Phe Ser Leu Val Phe Gly Asp Val Leu Leu
                                    1.0
Tyr Gln Asp Lys Ile Leu Val Arg His Leu Gly Ile Gln Pro Tyr Glu
            20
                                25
Pro Val Ser Gln Ala Met His Asp Phe Thr Asp Met Arg Asp Asp Thr
                            40
Thr Pro Asp Glu Ile Trp Leu Val Glu His Met Pro Val Phe Thr Gln
Gly Gln Ala Gly Lys Ala Glu His Leu Leu Met Thr Gly Asp Ile Pro
Val Ile Gln Ser Asp Arg Gly Gly Gln Val Thr Tyr His Gly Pro Gly
                85
                                     90
Gln Gln Val Met Tyr Val Leu Leu Asn Leu Lys Arg Arg Lys Leu Gly
                                105
                                                     110
Val Arg Glu Leu Val Thr Leu Leu Glu Gln Thr Val Val Asn Thr Leu
                            120
Ala Glu Tyr Gly Ile Asp Ala His Pro Arg Ala Asp Ala Pro Gly Val
                        135
                                             140
Tyr Val Gly Glu Lys Lys Ile Cys Ser Leu Gly Leu Arg Ile Arg Lys
                    150
                                        155
Gly Cys Ser Phe His Gly Leu Ala Leu Asn Ile Asn Met Asp Leu Thr
                165
                                    170
Pro Phe Gln Arg Ile Asn Pro Cys Gly Tyr Ala Gly Met Glu Met Thr
            180
                                185
Gln Met Arg Gln Trp Val Ala Thr Ala Thr Pro Glu Asn Ile Arg Pro
                            200
Val Leu Leu Lys Lys Phe Leu Ala Leu Leu Asn Asn Pro Asp His Glu
                        215
Tyr Ile Ala Ala
225
<210> 5934
<211> 387
<212> PRT
<213> Enterobacter cloacae
<400> 5934
Pro Gly Val Asp Met Tyr Ala Leu Thr His Gly Arg Ile Tyr Thr Gly
His Glu Ile Leu Asp Asp His Ala Ile Val Ile Ala Asn Gly Leu Ile
Glu Arg Val Cys Pro Leu Ala Glu Leu Pro Pro Glu Ile Glu Gln Arg
Ser Leu Asn Gly Ala Val Ile Ser Pro Gly Phe Ile Asp Val Gln Leu
Asn Gly Cys Gly Gly Val Gln Phe Asn Asp Thr Ala Glu Ala Val Thr
                    70
                                        75
Val Glu Thr Leu Glu Ile Met Gln Lys Ala Asn Glu Lys Ser Gly Cys
                85
                                    90
Thr Ser Tyr Leu Pro Thr Leu Ile Thr Ser Ser Asp Asp Leu Met Lys
            100
                                105
                                                     110
Gln Gly Ile Arg Val Met Arg Glu Tyr Leu Ala Lys His Pro Asn Gln
                            120
                                                125
Ala Leu Gly Leu His Leu Glu Gly Pro Trp Leu Asn Met Val Lys Lys
                        135
                                            140
Gly Thr His Asn Pro Asn Tyr Val Arg Lys Pro Asp Ala Glu Leu Val
                    150
                                        155
```

Asp Tyr Met Cys Ala Asn Ala Asp Val Ile Thr Lys Val Thr Leu Ala

Pro Glu Met Thr Gly Thr Asp Val Ile Ser Lys Leu Ala Ala Gly

```
180
                                185
Ile Val Val Ser Ala Gly His Ser Asn Ala Thr Leu Lys Glu Ala Lys
                            200
Ala Gly Phe Arg Ala Gly Ile Thr Phe Ala Thr His Leu Tyr Asn Ala
                        215
                                            220
Met Pro Tyr Ile Thr Gly Arg Glu Pro Gly Leu Val Gly Ala Ile Leu
                    230
                                        235
Asp Glu Pro Asp Val Tyr Cys Gly Ile Ile Ala Asp Gly Leu His Val
                245
                                    250
Asp Tyr Thr Asn Ile Arg Asn Ala Gln Arg Leu Lys Gly Asp Lys Leu
            260
                                265
                                                    270
Cys Leu Val Thr Asp Ala Thr Ala Pro Ala Gly Ala Asn Ile Asp Gln
                            280
Phe Ile Cys Ala Gly Lys Thr Ile Tyr Tyr Arg Asn Gly Leu Cys Val
                        295
                                             300
Asp Glu Asn Gly Thr Leu Ser Gly Ser Ser Leu Thr Met Ile Glu Gly
                    310
                                        315
Val Arg Asn Leu Val Glu His Cys Gly Ile Ala Leu Glu Glu Val Leu
                                    330
Arg Met Ala Thr Leu Tyr Pro Ala Arg Ala Ile Gly Val Asp Lys Gln
                                345
Leu Gly Gly Ile Ala Pro Gly Met Val Ala Asn Leu Thr Ala Phe Thr
                            360
His Asp Tyr Lys Ile Ile Lys Thr Ile Val Asn Gly Asn Glu Val Val
                        375
                                             380
Thr Glu
385
<210> 5935
<211> 268
<212> PRT
<213> Enterobacter cloacae
<400> 5935
Ile Met Arg Leu Ile Pro Leu Ala Thr Ala Glu Gln Val Gly Lys Trp
                                    10
Ala Ala Arg His Ile Val Asn Arg Ile Asn Ala Phe Lys Pro Thr Ala
            20
                                25
Asp Arg Pro Phe Val Leu Gly Leu Pro Thr Gly Gly Thr Pro Leu Thr
                            40
                                                45
Ala Tyr Lys Ala Leu Val Glu Met His Lys Ala Gly Gln Val Ser Phe
                        55
                                            60
Lys His Val Val Thr Phe Asn Met Asp Glu Tyr Val Gly Leu Pro Lys
                                        75
                    70
Glu His Pro Glu Ser Tyr His Ser Phe Met His Arg Asn Phe Phe Asp
                85
                                    90
His Val Asp Ile Pro Ala Glu Asn Ile Asn Leu Leu Asn Gly Asn Ala
           100
                               105
                                                    110
Pro Asp Ile Asp Ala Glu Cys Arg Gln Tyr Glu Glu Lys Ile Arg Ser
                            120
                                                125
Tyr Gly Lys Ile His Leu Phe Met Gly Gly Val Gly Asn Asp Gly His
                       135
                                            140
Ile Ala Phe Asn Glu Pro Ala Ser Ser Leu Ala Ser Arg Thr Arg Ile
                   150
                                        155
Lys Thr Leu Thr His Asp Thr Arg Val Ala Asn Ser Arg Phe Phe Asp
                165
                                    170
```

Gly Asp Val Asn Gln Val Pro Lys Tyr Ala Leu Thr Val Gly Val Gly 180 185 190 Thr Leu Leu Asp Ala Glu Glu Val Met Ile Leu Val Leu Gly Ala Val 195 200 205 Lys Ala Gln Ala Leu Gln Ala Ala Val Glu Gly Asn Val Asn His Met

215 220 Trp Thr Ile Ser Cys Leu Gln Leu His Pro Lys Ala Val Val Cys 230 235 Asp Glu Pro Ser Thr Met Glu Leu Lys Val Lys Thr Leu Lys Tyr Phe 245 250 Asn Glu Leu Glu Ala Glu Asn Ile Lys Gly Leu 260 <210> 5936 <211> 399 <212> PRT <213> Enterobacter cloacae

<400> 5936 Val Ser Lys Ser Met Thr Pro Gly Gly Gln Ala Gln Ile Gly Asn Val 10 Asp Leu Val Lys Gln Leu Asn Ser Ala Ala Val Tyr Arg Leu Ile Asp 20 25 Gln His Gly Pro Ile Ser Arg Ile Gln Ile Ala Glu Gln Ser Gln Leu 40 Ala Pro Ala Ser Val Thr Lys Ile Thr Arg Gln Leu Ile Glu Arg Gly 55 Leu Ile Lys Glu Val Asp Gln Gln Ala Ser Thr Gly Gly Arg Arg Ala 70 75 Ile Ser Ile Val Thr Glu Thr Arg Asn Phe Gln Ala Ile Gly Val Arg 85 90 Leu Gly Arg His Asp Thr Thr Leu Thr Leu Tyr Asp Leu Ser Ser Lys 100 105 110 Ala Ile Ala Glu Glu His Tyr Pro Leu Pro Glu Arg Thr Gln Glu Thr 115 120 125 Leu Glu His Ala Leu Leu Asn Thr Ile Ala Gln Phe Ile Glu Ser Cys 135 140 Gln Arg Lys Ile Arg Glu Leu Ile Ala Ile Ser Val Ile Leu Pro Gly 150 155 Leu Val Asp Pro Glu Ser Gly Val Ile Arg Tyr Met Pro His Ile Lys 165 170 Val Glu Asn Trp Gly Leu Val Glu Ala Leu Glu Lys Arg Phe Lys Leu 180 185 Thr Cys Phe Val Gly His Asp Ile Arg Ser Leu Ala Leu Ala Glu His 200 Tyr Phe Gly Ala Ser Gln Asp Cys Glu Asp Ser Ile Leu Val Arg Val 215 220 His Arg Gly Thr Gly Ala Gly Ile Ile Ser Asn Gly Arg Ile Phe Ile 230 235 Gly Arg Asn Gly Asn Val Gly Glu Ile Gly His Ile Gln Val Glu Pro 250 Leu Gly Glu Arg Cys His Cys Gly Asn Phe Gly Cys Leu Glu Thr Val 265 Ala Ala Asn Ala Ala Ile Glu His Arg Val Arg His Leu Leu Glu Gln 280 Gly Tyr Gln Ser Arg Val Thr Leu Asp Asp Cys Lys Ile Gly Ala Ile 295 300 Cys Lys Ala Ala Asn Lys Gly Asp Ala Leu Ala Cys Glu Val Ile Glu 310 315 Gln Val Gly Arg His Leu Gly Lys Thr Ile Ala Ile Ala Ile Asn Leu

330

Phe Asn Pro Gln Lys Val Val Ile Ala Gly Glu Ile Val Glu Ala Glu 345 Lys Val Leu Leu Pro Ala Ile Glu Gly Cys Ile Asn Thr Gln Ala Leu 360 Lys Ala Phe Arg Gln Asn Leu Pro Val Val Arg Ser Thr Leu Asp His

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375
Arg Ser Ala Ile Val Phe Ile His Glu Gly Arg Glu Arg Arg
                    390
<210> 5937
<211> 115
<212> PRT
<213> Enterobacter cloacae
<400> 5937
Met Arg Arg Asp Met Tyr Glu Val Met Asp Arg Trp Gly Ala Trp Ala
                                    10
Ala Ala Asp Ser Ser Gly Val Asp Trp Gln Pro Ile Ala Ala Gly Phe
            20
                                25
Lys Gly Leu Leu Pro His Gly Lys Lys Ser Arg Leu Gln Cys Asp Asp
                            40
Asp Glu Gly Ile Met Ile Asp Gly Cys Ile Ala Arg Leu Arg Lys Phe
                        55
Lys Ser Asp Glu Tyr Glu Leu Leu Ile Ala His Phe Val Ile Gly Ile
Ser Leu Arg Thr Ile Ala Lys Lys Lys Cys Ser Asp Gly Thr Val
                                    90
Arg Lys Asp Leu Gln Thr Ala Leu Gly Phe Val Glu Gly Val Met Ser
                                105
Met Leu
       115
<210> 5938
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 5938
Asp Val Met Gly Ile Met Cys Asp Met Ser Tyr Arg Leu Tyr Pro Leu
                                    1.0
Lys Asn Thr Val Ala Phe Arg Lys Thr Thr Glu Lys Trp Gly Gly Leu
                                25
Ser Asn Met Ala Lys Gly Tyr Pro Leu Leu Ile Asn Gly Leu Pro Ile
                            40
Gln Ser Ser Glu Ile Leu Tyr Gln Ala Cys Arg Tyr Pro Asp Tyr Pro
                        55
                                            60
Glu Ile Gln Lys Ala Ile Ile Thr Gln Gly Asn Pro Tyr Glu Ala Lys
                    70
                                        75
Gln Thr Ala Arg Ser Phe Glu Ala Lys Thr Arg Ser Gly Trp Glu Lys
               85
                                    90
Asn Arg Val Ser Ile Met Lys Trp Cys Val Cys Val Lys Leu Cys Gln
                               105
Asn Trp Glu Thr Phe Phe Ala Leu Leu Asp Ser Thr Gly Glu His Asp
                           120
Ile Val Glu His Ser Glu Lys Asp Gln Phe Trp Gly Ala Ser Lys Asp
                       135
Ser Glu Gly Asn Phe Tyr Gly Met Asn Val Leu Gly Arg Ile Leu Met
                   150
                                       155
Asp Val Arg Asp Val Ala Arg Lys Arg Gly Pro Thr Gly Phe Ala Ser
                                   170
               165
Ile Pro Pro Leu Pro Leu Glu Lys Phe Leu Leu Gly Asp His Ile
                               185
                                                   190
Arg Asp Val Thr Phe Thr Pro Pro Pro Val Asp Thr Gly His Ser Leu
                            200
       195
                                                205
Ser Leu Phe
   210
```

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<210> 5939
<211> 217
<212> PRT
<213> Enterobacter cloacae
<400> 5939
Ser Ser Arg Ile Arg Cys Asn Met Leu Phe His Thr Asn Asn Ser Ile
                                    10
Tyr Leu Ser His Asn Asp Gly Gln Gln Val Ser His Thr Pro Ser Met
            20
His Cys Tyr Gly Cys Val Lys Lys Cys Leu Phe Gly Asp Ala Glu Ala
        35
                            40
                                                 45
Cys Ala Arg Lys Thr Cys Thr Gly Leu Glu Cys Tyr Ile Trp Pro Asp
                        55
                                             60
Asn Asn Ser Tyr Leu Val Glu Gly Ile Arg His Tyr Phe Glu Cys Val
                    70
                                         75
Ser Asp Lys Tyr Ile Ser Gln Pro Val Val Ile Ile Asp Phe Ser His
                                    90
Lys Asn Ile Thr Tyr Phe Leu Asn Asp Ser Trp Leu Glu Gln Phe Lys
                                105
Asn Met Arg Leu Ile Leu Val Thr Asp Lys Lys Met Thr Ala Ile Ala
                            120
His Tyr Trp Phe Tyr Asn Asp Thr Leu Glu Thr Thr Ile Ser Ser Ile
                        135
                                             140
Ile Phe Tyr Asp Asp Ser Ala Glu Glu Val Ala Thr Lys Leu Lys Lys
                    150
                                        155
Thr Phe Leu Ala Lys Thr Ile Lys Pro Ser Gly Ser Arg Pro Lys Leu
                165
                                    170
Ser Gln Asn Glu Phe Ser Leu Phe Ser Phe Leu Phe Asn Gly Trp Thr
                                185
                                                     190
Pro Lys Lys Ile Ala Tyr Gln Asn Gly Thr Ser Val Lys Asn Thr Tyr
       195
                            200
Ala Met Lys Asn Leu His His Glu
<210> 5940
<211> 812
<212> PRT
<213> Enterobacter cloacae
<400> 5940
Phe Met Arg Ile Cys Cys Leu Gly Arg Ile Lys Thr Leu Phe Tyr His
                                    10
Gly Leu Ser Leu Tyr Leu Ser Ser Leu Ile Leu Leu Ala Trp Thr Ala
            20
                                25
Ala Leu Gly Val Ala Gly Leu Trp Asn Ile Trp Val Leu Val Pro Leu
                            40
                                                4.5
Ala Ile Ile Leu Leu Pro Phe Asn Leu Thr Pro Met Arg Lys Ser Met
                        55
                                            60
Ile Ser Val Pro Val Phe Arg Gly Phe Arg Lys Val Met Pro Pro Met
                    70
                                        75
Ser Arg Thr Glu Lys Glu Ala Ile Asp Ala Gly Thr Thr Trp Trp Glu
                                    90
Gly Asp Leu Phe Gln Gly Asn Pro Asp Trp Lys Lys Leu His Asn Tyr
                                105
Pro Gln Pro Arg Leu Thr Ala Glu Glu Gln Ala Phe Ile Asp Gly Pro
                            120
Val Glu Glu Ala Cys Arg Met Ala Asn Asp Phe Ala Ile Thr His Glu
                        135
Met Ala Asp Leu Pro Pro Glu Leu Trp Ala Tyr Leu Lys Glu His Arg
```

150 155 Phe Phe Ala Met Ile Ile Lys Lys Glu Tyr Gly Gly Leu Glu Phe Ser 165 170 Ala Tyr Ala Gln Ala Arg Val Leu Gln Lys Leu Ala Gly Val Ser Gly 185 Ile Leu Ala Ile Thr Val Gly Val Pro Asn Ser Leu Gly Pro Gly Glu 200 Leu Leu Gln His Tyr Gly Thr Glu Glu Gln Lys Asp His Tyr Leu Pro 215 220 Arg Leu Ala Arg Gly Gln Glu Ile Pro Cys Phe Ala Leu Thr Ser Pro 230 235 Glu Ala Gly Ser Asp Ala Gly Ala Ile Pro Asp Thr Gly Val Val Cys 250 245 Met Gly Glu Trp Gln Gly Gln Gln Val Leu Gly Met Arg Leu Thr Trp 265 260 270 Asn Lys Arg Tyr Ile Thr Leu Ala Pro Ile Ala Thr Val Leu Gly Leu 275 280 285 Ala Phe Lys Leu Ser Asp Pro Glu Lys Leu Leu Gly Gly Glu Glu Asp 295 300 Leu Gly Ile Thr Cys Ala Leu Ile Pro Thr Ser Thr Pro Gly Val Glu 310 315 Ile Gly Arg Arg His Phe Pro Leu Asn Val Pro Phe Gln Asn Gly Pro 325 330 Thr Arg Gly Gln Asp Ile Phe Val Pro Ile Asp Tyr Ile Ile Gly Gly 340 345 Pro Lys Met Ala Gly Gln Gly Trp Arg Met Leu Val Glu Cys Leu Ser 360 Val Gly Arg Gly Ile Thr Leu Pro Ser Asn Ser Thr Gly Gly Leu Lys 375 Ser Val Ala Met Gly Ile Gly Ala Tyr Ala His Ile Arg Arg Gln Phe 390 395 Lys Ile Ser Ile Gly Lys Met Glu Gly Ile Glu Glu Pro Leu Ala Arg 405 410 Ile Ala Gly Asn Ala Tyr Val Met Asp Ala Ala Ala Ser Leu Ile Thr 420 425 Tyr Gly Ile Met Leu Gly Glu Lys Pro Ala Val Leu Ser Ala Ile Val 440 Lys Tyr His Cys Thr His Arg Ala Gln Gln Ser Ile Ile Asp Ala Met 455 Asp Ile Ala Ser Gly Lys Gly Ile Met Leu Gly Glu Gly Asn Phe Leu 470 475 Ala Arg Asn Tyr Gln Gly Ala Pro Ile Ala Ile Thr Val Glu Gly Ala 485 490 Asn Ile Leu Thr Arg Ser Met Met Ile Phe Gly Gln Gly Ala Ile Arg 505 Cys His Pro Tyr Val Leu Glu Glu Met Ala Ala Gln Asn Asn Asp 520 525 Val Asp Ala Phe Asp Lys Leu Phe Lys His Ile Gly His Val Gly 535 540 Ser Asn Glu Val Arg Ser Phe Trp Leu Gly Leu Thr Arg Gly Leu Thr 550 555 Ser Ala Thr Pro Thr Gly Asp Ala Thr Lys Arg Tyr Tyr Gln His Leu 565 570 Asn Arg Leu Ser Ala Asn Leu Ala Leu Leu Ser Asp Val Ser Met Ala 580 585 590 Val Leu Gly Gly Ser Leu Lys Arg Arg Glu Arg Ile Ser Ala Arg Leu 595 600 Gly Asp Val Leu Ser Gln Ile Phe Leu Ala Ser Ala Val Leu Lys Arg 615 620 Tyr Asp Asp Glu Gly Arg Gln Glu Ala Asp Leu Pro Leu Val His Trp 630 635

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Gly Val Gln Asp Ala Leu Tyr Gln Ala Glu Gln Ala Ile Asp Asp Leu
                645
                                    650
Leu Ala Asn Phe Pro Asn Arg Phe Val Ala Gly Ala Leu Arg Val Val
                                665
Ile Phe Pro Thr Gly Arg His His Leu Ala Pro Ser Asp Lys Leu Asp
       675
                            680
                                                685
His Lys Val Ala Lys Ile Leu Gln Val Pro Ser Ala Thr Arg Ser Arg
                        695
                                            700
    690
Ile Gly Arg Gly Gln Tyr Leu Ala Pro Thr Pro His Asn Pro Val Gly
                   710
                                        715
Leu Leu Glu Glu Ala Leu Leu Asp Val Met Ala Ala Asp Pro Ile His
                725
                                    730
Gln Lys Ile Cys Lys Gln Leu Gly Lys Asn Leu Pro Phe Thr Arg Leu
            740
                                745
Asp Glu Leu Ala Lys Gln Ala Leu Ala Gly Gly Ile Ile Asp Asn Ser
                            760
Glu Ala Ala Ile Leu Val Lys Ala Glu Glu Ser Arg Leu Arg Ser Ile
                        775
Asn Val Asp Asp Phe Glu Pro Glu Glu Leu Ala Thr Gln Pro Val Lys
                    790
Leu Pro Glu Lys His Arg Lys Pro Glu Ala Ala
               805
<210> 5941
<211> 263
<212> PRT
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<213> Enterobacter cloacae

<400> 5941 Gly Val Gly Ile Val Pro Gly Leu Lys Ile Ser Val Leu Gln Gln Pro 10 Leu Val Trp Met Asp Gly Pro Ala Asn Leu Arg His Phe Asp Arg Gln 25 Leu Glu Glu Ile Ser Gly Arg Asp Val Ile Val Leu Pro Glu Met Phe 40 45 Thr Thr Gly Phe Ala Met Glu Ala Ala Lys Gln Ser Met Pro Gln Asp 55 60 Glu Val Val Ala Trp Met His Ala Lys Ala Gln Glu Thr Asn Ala Leu 70 75 Ile Ala Gly Ser Val Ala Leu Gln Thr Glu Arg Gly Pro Val Asn Arg 90 Phe Leu Leu Val Glu Pro Glu Gly Lys Val His Phe Tyr Asp Lys Arg 100 105 110 His Leu Phe Arg Met Ala Asp Glu His Gln His Tyr Val Ala Gly Asn 120 Glu Arg Val Val Phe Glu Trp Arg Gly Trp Arg Ile Leu Pro Leu Val 135 Cys Tyr Asp Leu Arg Phe Pro Val Trp Ser Arg Asn Arg Asn Asp Tyr 150 155 Asp Leu Ala Leu Tyr Val Ala Asn Trp Pro Ala Pro Arg Ser Leu His 165 170 Trp Gln Ala Leu Leu Thr Ala Arg Ala Ile Glu Asn Gln Ala Tyr Ile 185 Val Gly Cys Asn Arg Val Gly Thr Asp Gly Asn Gly His His Tyr Arg 200 205 Gly Asp Ser Arg Val Ile Ser Pro Gln Gly Glu Ile Ile Ala Thr Ala 215 220 Glu Pro His Gln Ala Thr Arg Ile Asp Ala Glu Leu Ser Leu Thr Ala 230 235 Leu Thr Glu Tyr Arg Glu Lys Phe Pro Ala Trp Gln Asp Ala Asp Arg 250 245

Phe Ser Ile Glu Asn Lys 260 <210> 5942 <211> 166 <212> PRT <213> Enterobacter cloacae <400> 5942 Glu Asp Ile His Trp Ile Phe Leu Val Ser Arg Pro Leu Tyr Pro Leu Ala Val Glu Leu Leu Met Arg Pro Glu Ser Thr Leu Leu Ser Asp Met Glu Pro Ile Glu Gly Val Ile Asn Ala Ile Arg Ala Gly Ser Glu Arg 40 Ala Glu Arg Ile Ser Gln Thr Leu Leu Ile Pro Glu Thr Pro Asp Ile 55 60 Glu Glu Glu Ser Glu Gln Met Ile Ala Leu Thr His Ser Glu Arg Lys 70 75 Val Leu Arg Leu Leu Gly Lys Gly Trp Gly Ile Asn Gln Ile Ala Thr 90 Leu Leu Asn Lys Ser Asn Lys Thr Ile Ser Ala Gln Lys Asn Ser Ala 105 100 Met Arg Arg Leu Ser Leu Arg Ser Asn Ala Asp Met Tyr Ala Trp Ile 120 125 Ser Ser Thr Gln Gly Met Arg Glu Leu Ser Leu Met Ser Ala Tyr Gly 135 140 Glu Phe Glu Glu Trp Lys Arg Pro Leu Gln Gln Asp Ile Ser Pro Ser 150 155 Ser Lys Ala Ala Gln <210> 5943 <211> 383 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(327) Glu Arg Pro Lys Arg Thr Tyr Asp Arg Arg Ser Ala Met Ser Ala Asn His Ala Ala Phe Asn Leu Ile Phe Arg Phe Val Glu Asn Tyr Val Ser Pro Ile Ala Gly Arg Ile Ser Ser Gln Arg His Val Met Ala Ile Arg 45

Asp Gly Phe Ile Ser Ala Met Pro Phe Met Ile Val Gly Ser Phe Leu 55 Leu Val Phe Ala Tyr Pro Pro Phe Ser Pro Asp Thr Thr Trp Gly Phe 70 Ala Arg Ala Trp Leu Asp Met Ala Lys Gln Phe Glu Gly Gln Ile Leu 90 Thr Pro Phe Asp Met Thr Met Gly Val Met Ser Leu Tyr Ile Cys Ala 105 Ala Ile Ala Tyr Asn Leu Gly Lys His Tyr Val Lys Thr His Gln Leu 120 Asp Pro Phe Met Cys Ala Met Leu Ser Leu Met Ala Phe Leu Leu Val 135 Ala Ala Pro Lys Thr Lys Gly Ala Leu Pro Val Asp Ser Leu Gly Gly

```
150
                                       155
Thr Gly Ile Phe Thr Ala Ile Leu Val Ala Ile Tyr Cys Val Glu Met
               165
                                   170
Met Arg Phe Leu Lys Ala His Asn Ile Gly Ile Arg Leu Pro Asp Gln
                                185
Val Pro Pro Met Ile Lys Asn Ser Phe Asp Leu Leu Ile Pro Val Leu
                            200
Val Val Val Leu Thr Leu Tyr Pro Leu Ser Leu Leu Ile Gln Ser Gln
                        215
                                            220
Phe Gly Met Leu Ile Pro Gln Ala Ile Met Ser Ile Phe Lys Pro Leu
                    230
                                        235
Val Ser Ala Ala Asp Ser Leu Pro Ala Ile Leu Leu Ala Val Leu Ile
                                    250
                245
Gly His Leu Leu Trp Phe Ala Gly Ile His Gly Ala Ala Ile Val Ser
            260
                                265
Gly Met Leu Gln Met Phe Trp Leu Thr Asn Leu Gly Ala Asn His Thr
        275
                            280
Ala Leu Ala Ala Asn Gln Pro Leu Pro His Ile Phe Met Glu Ala Phe
    290
                        295
                                            300
Trp Thr Phe Phe Ile Val Ile Gly Gly Ser Gly Ala Thr Met Gly Leu
                    310
                                        315
Val Phe Cys Tyr Leu Arg Xaa Arg Ser Ala His Leu Arg Ser Ile Gly
                325
                                    330
Arg Leu Asn Val Val Pro Ser Ile Phe Asn Ile Asn Glu Pro Val Ile
            340
                                345
Phe Val Thr Pro Asp Cys Asp Glu Pro Gly Val Leu Tyr Ser Phe Pro
                            360
Cys Trp Arg Arg Trp Leu Ile Pro Cys Trp His Gly Gln Arg
<210> 5944
<211> 71
<212> PRT
<213> Enterobacter cloacae
<400> 5944
Phe Pro Ser Cys Arg Gly Arg His Pro Ala Pro Val Gly Ala Ala Trp
Ala Leu Gly Trp Asp Phe Arg Ala Ala Ile Leu Val Leu Val Leu Ala
                                25
Cys Val Ser Ala Ile Ile Tyr Phe Pro Phe Phe Lys Val Tyr Glu Lys
                            40
Gln Leu Leu Gln Gln Glu Ala Glu Glu Ala Gln Arg Asn Gly Glu Glu
                        55
Glu Asn Gln Gln Val Ala
<210> 5945
<211> 230
<212> PRT
<213> Enterobacter cloacae
<400> 5945
Gly Met Glu Lys Thr Thr Ala Thr Arg His Ile Ala Val Ile Glu Ser
Cys Ser Met Ser Ala Val Gly Leu Lys His Leu Phe Ala Met Pro Ser
Leu Ser His Tyr Gln Val His Leu Phe Ser Arg Phe Ala Ser Phe Lys
Ala Ala Leu Ser Asp Ile Ser Phe Tyr Ala Val Ile Tyr Ser Leu Ser
```

```
Asp Glu Arg Glu Glu Arg Arg Asn Cys Leu Ala Cys Leu Arg Asp Leu
                    70
                                        75
Thr Phe Thr His Ser Asp Val Gln Arg Ile Val Leu Ala Ser Asp Glu
                85
                                    90
Met Glu Ala Arg Leu Val Ser His Leu Ser Pro Ser Arg Leu His Gly
            100
                                105
Ile Ile Ser Lys Ser Val Pro Leu Lys Gln Leu Met Glu Gly Leu Lys
                            120
Thr Leu Leu Ser Glu Thr His Gln Val Asn Asp Asn Met Tyr Asn His
                        135
                                            140
Trp Cys Val Ser Gln Asn Arg Met Leu Ser Pro Thr Glu Arg Ala Ile
                    150
                                        155
Leu Arg Tyr Met Ser Ser Gly Phe Ser Ile Pro Glu Ile Ala Ala Gln
                165
                                    170
Leu Glu Arg Asn Ile Lys Thr Ile Arg Ala His Lys Phe Asn Ala Met
                                185
Val Lys Leu Gly Val Asn Ser Asp Val Gly Leu Leu Asp Ala Ala Asp
                            200
                                                205
Ile Leu Ala His Leu Pro Ala Arg Glu Val Arg Arg Ser Ala Leu Thr
                        215
                                            220
Val Pro Ser Phe Ser
                    230
<210> 5946
<211> 267
<212> PRT
<213> Enterobacter cloacae
<400> 5946
Arg Leu His Thr Met Ala Thr Arg Thr Ala His Ile Val Glu Pro Leu
                                    10
Leu Trp Arg Ala Pro Leu Ser Ala Gly Glu Thr Thr Leu Ala Asp Ala
                                25
Ile Arg Glu Lys Ile Ala Val Thr Arg Ala His Leu Leu Asp Phe Ile
                            40
Lys Leu Asp Glu Ala Pro Pro His His Ala Leu Thr Leu Thr Glu Trp
                        55
Gln Arg Pro Ala Glu Leu Arg Ser Leu Leu Ala Thr Tyr Ser Asp His
                                        75
Ile Tyr Arg Asn Gln Pro Thr Leu Thr Arg Glu Asn Lys Pro Leu Leu
                                    90
Ser Leu Trp Ala Gln Trp Tyr Ile Gly Leu Met Val Pro Pro Val Met
                                105
Leu Ala Leu Leu Thr Gln Glu Thr Met Leu Asp Leu Ser Ser Glu His
                            120
Phe His Val Glu Phe His Glu Thr Gly Arg Ala Ala Cys Phe Trp Ile
                        135
                                            140
Asp Val His Glu Asp Pro Ser Ala Arg His Leu Ser Ala Gln Ala Arg
                    150
                                        155
Met Glu Arg Leu Ile Thr Arg Ala Leu Val Pro Val Ile Asp Ala Leu
                                    170
                165
Glu Ala Thr Gly Glu Ile Asn Gly Lys Leu Ile Trp Ser Asn Thr Gly
            180
                                185
Tyr Leu Ile His Trp Tyr Leu Thr Glu Met Lys Pro Leu Leu Gly Asp
                           200
                                                205
Glu Lys Val Asp Ala Leu Arg Gln Ser Cys Phe Phe Ala Arg Gln Leu
                        215
                                            220
Ser Asp Gly Arg Asp Asn Pro Leu Tyr Arg Thr Val Val Pro Arg Glu
                   230
                                        235
Gly Leu Leu Val Arg Arg Thr Cys Cys Gln Arg Tyr Arg Leu Pro Asp
```

250

Val Gln Gln Cys Gly Asp Cys Thr Leu Lys 260 265

<210> 5947

<211> 164

<212> PRT

<213> Enterobacter cloacae

<400> 5947

Gln Ile Thr Gln Asp Ile Cys Gln Glu Glu Ser Met Ser Leu Gln Ser

1 5 10 15

Val Gln Gln Phe Phe Ala Glu His Ala Pro Asp Ile Glu Ile Ile Glu
20 25 30

Leu Asn Gln Ser Thr Ala Thr Val Ala Leu Ala Ala Ala Ala His Asn  $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$ 

Val Glu Pro Gly Gln Ile Ala Lys Thr Leu Ser Leu Lys Ile Lys Asn 50 55 60

Asp Val Ile Leu Val Val Ala Lys Gly Asp Ala Arg Leu Asp Asn Lys 65 70 75 80 Lys Leu Lys Glu Thr Phe Gly Ala Lys Ala Arg Met Leu Ser Ser Asp

85 90 95
Glu Val Val Thr Leu Thr Gly His Pro Val Gly Gly Val Cys Pro Phe

100 105 110

Gly Leu Glu Asn Pro Leu Ser Val Tyr Cys Asp Ile Thr Leu Lys Gln
115 120 125

Tyr Ala Glu Val Leu Pro Ala Ala Gly Ala Ile His Ser Ala Val Arg

Ile Ser Pro Asp Arg Met Ala Glu Leu Thr Ala Ala Lys Trp Val Asp 145 150 155 160

Val Cys Ile

<210> 5948

<211> 335

<212> PRT

<213> Enterobacter cloacae

<400> 5948

Ile Ala Ile Leu Pro Gly Pro Cys Cys Tyr Thr Gln Ala Pro Ser Thr 1 5 10 15

Cys Thr Ala Gly Cys Ser Ile Thr Ala Asn Tyr Leu Lys Lys Phe Ile 20 25 30

Met Ser Arg Ile Leu Ala Ala Ile Thr Leu Leu Ser Val Ile Leu

Met Ser Arg Ile Leu Ala Ala Ile Thr Leu Leu Leu Ser Val Ile Leu 35 40 45

Thr Ile Leu Val Thr Ile Ala Cys Ser Val Pro Ile Ile Val Ala Gly 50 55 60

Ile Ile Lys Leu Leu Pro Val Pro Pro Val Trp Arg Ala Val Ser
65 70 75 80

Ala Phe Cys Asn Phe Met Met Tyr Cys Trp Cys Glu Gly Leu Ala Ile

85

90

95

Leu Leu His Leu Asp Pro Trp Leu Lys Trp Asp Val Gly Cly Leu Cly

Leu Leu His Leu Asn Pro Trp Leu Lys Trp Asp Val Gln Gly Leu Glu 100 105 110

Lys Leu Asn Lys Lys Asn Trp Tyr Leu Leu Ile Cys Asn His His Ser 115 120 125

Trp Ala Asp Ile Val Val Leu Cys Val Leu Phe Arg Lys His Ile Pro 130 135 140 Met Asn Lys Tyr Phe Leu Lys Gln Gln Leu Ala Trp Val Pro Phe Ile

145 150 155 160
Gly Leu Ala Cys Trp Ala Leu Asp Met Pro Phe Met Lys Arg Tyr Ser

165 170 175 Arg Ser Tyr Leu Ile Arg His Pro Glu Arg Arg Gly Lys Asp Val Glu

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180
                                185
Thr Thr Arg Arg Ser Cys Glu Lys Phe Arg Ala His Pro Thr Thr Ile
                            200
                                                 205
Val Asn Phe Val Glu Gly Ser Arg Phe Thr Glu Glu Lys Arg Gln Gln
                        215
                                             220
Thr Arg Ser Pro Tyr Gln Asn Leu Leu Pro Pro Lys Ala Ala Gly Ile
                    230
                                        235
Ala Met Ala Leu Asn Val Leu Gly Glu Gln Phe Asp Lys Leu Leu Asn
                245
                                    250
Val Thr Leu Cys Tyr Pro Glu Asn Asp Arg Thr Pro Phe Tyr Asp Leu
            260
                                265
                                                     270
Leu Ser Gly Arg Leu Thr Arg Ile Val Val Arg Val Asp Leu Val Pro
        275
                            280
Val Asn Thr Glu Leu His Gly Asp Tyr Val Asn Asp Lys Asn Phe Lys
                        295
Arg Arg Phe Gln Leu Trp Leu Asn Thr Leu Trp Lys Glu Lys Asp Glu
                    310
                                         315
Gln Ile Ala Lys Ile Lys Ser Ser Tyr Lys Asn Ala Gly Gln
                                     330
<210> 5949
<211> 185
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(136)
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Cys Ser Phe His Leu Glu Arg His Val Ser Arg Val Asn Pro Thr Ile
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Lys Glu Ala Ile Phe Val Asn Gln Cys Gln Glu Ile Ile Gly Val Val
           20
                                25
Leu Ala Gly Gly Arg Ala Thr Arg Met Gly Gly Lys Asp Lys Gly Leu
                            40
                                                4.5
Gln Leu Leu Asn Asn Thr Pro Leu Trp Gln His Val Ala Asp Thr Leu
                        5.5
                                            60
Ala Asp Gln Val Ser Ser Met Ala Ile Ser Ala Asn Arg His Val Asp
                   70
                                        75
Ile Tyr Gln Arg Ser Gly Tyr Pro Val Tyr Gln Asp Asn Leu Ala Asp
                85
                                    90
Tyr Pro Gly Pro Leu Ala Gly Met Leu Ser Val Met Gln Gln Ser Tyr
           100
                                105
Gly Glu Trp Phe Leu Phe Cys Pro Cys Asp Thr Pro Phe Ile Pro Ser
                            120
Cys Leu Val Glu Arg Leu Val Xaa Arg Arg Gly Gly Ala Pro Val Val
                        135
                                            140
Trp Val His Asp Gly Glu Arg Glu His Pro Thr Ile Ala Leu Ile Asn
                   150
                                        155
Arg Ser Leu Ile Ser Ala Leu Gly Val Leu Leu Ala Ala Gly Asp Arg
               165
                                    170
Arg Val Leu Val Phe Met Pro Pro Phe
            180
                                185
<210> 5950
<211> 100
<212> PRT
<213> Enterobacter cloacae
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<400> 5950

Arg Val Ser Leu Asn Glu Arg Ser Thr Thr Met Lys Cys Lys Arg Leu Asn Glu Val Ile Glu Leu Leu Gln Pro Ala Trp Gln Lys Glu Pro Glu 25 Leu Asn Leu Met Gln Phe Leu Gln Lys Leu Ala Lys Glu Ser Gly Phe Asp Gly Glu Leu Ala Asp Leu Ser Asp Asp Ile Leu Ile Tyr His Leu 55 Lys Met Arg Asp Ser Ala Lys Asp Ala Val Ile Pro Gly Ile Gln Lys 70 75 Asp Tyr Glu Glu Asp Phe Lys Thr Ala Leu Leu Arg Ala Arg Gly Val 90 Ile Lys Glu 100 <210> 5951

<211> 334

<212> PRT

<400> 5951

<213> Enterobacter cloacae

245

260

Phe Pro Asp Asp Arg Met Asn Asp Gln Ala Phe Thr Phe Gln Thr Leu His Pro Asp Thr Ile Met Asp Ala Leu Phe Glu Gln Gly Ile Arg Val Asp Ser Gly Leu Thr Ala Leu Asn Ser Tyr Glu Asn Arg Val Tyr Gln Phe Gln Asp Glu Glu Arg Gln Arg Phe Val Val Lys Phe Tyr Arg Pro Gln Arg Trp Ser Ala Glu Gln Ile Gln Glu Glu His Gln Phe Ala His Asp Leu Leu Asp Asp Asp Val Pro Val Ala Ala Pro Ile Lys Phe Asn 90 8.5 Asn Gln Thr Leu Leu Thr His Gln Gly Phe Tyr Tyr Ala Val Phe Pro 105 Ser Leu Gly Gly Arg Gln Phe Glu Ala Asp Asn Ile Asp Gln Met Glu 115 120 125 Trp Val Ala Arg Tyr Leu Gly Arg Ile His Gln Thr Gly Arg Lys 135 140 Pro Phe Val Ala Arg Pro Thr Ile Gly Val Lys Glu Tyr Leu Ile Glu 150 155 Pro Arg Gln Val Phe Glu Thr Ser Ala Leu Ile Pro Asn Ala Leu Lys 165 170 Asp Asn Phe Leu Thr Ala Thr Asp Lys Leu Ile Asp Ala Val Lys Ala 180 185 Ser Trp Arg Asp Asp Ile Thr Thr Leu Arg Leu His Gly Asp Cys His 200 205 Ala Gly Asn Ile Leu Trp Arg Asp Gly Pro Leu Phe Val Asp Leu Asp 215 220 Asp Ala Arg Met Gly Pro Ala Val Gln Asp Leu Trp Met Leu Leu Asn 235 Gly Asp Lys Ala Glu Gln Arg Met Gln Leu Glu Thr Ile Ile Glu Ala 250

Tyr Glu Glu Phe Ile Pro Phe Asn Ser Asp Glu Ile Ala Leu Ile Glu 265

Pro Leu Arg Ala Met Arg Phe Val Tyr Tyr Leu Ala Trp Leu Ile Arg 280

Arg Trp Glu Asp Pro Ala Phe Pro Arg Asn Phe Pro Trp Leu Thr Gly

Glu Asp Tyr Trp Arg Asn Gln Ile Ser Thr Phe Thr Glu Gln Val Lys

295

310

285

300

2277 Val Leu Gln Glu Pro Pro Leu Gln Leu Thr Pro Met Tyr 325 330 <210> 5952 <211> 217 <212> PRT <213> Enterobacter cloacae <400> 5952 Leu Asp Thr Pro Arg Arg Glu Leu Ile Met Lys Lys Ile Trp Leu Ala 10 Leu Ala Gly Met Ile Leu Ala Phe Ser Ala Thr Ala Ala Gln Phe Thr 20 Asp Gly Lys Gln Tyr Ile Thr Leu Asp Lys Pro Val Ala Gly Glu Pro 40 Gln Val Leu Glu Phe Phe Ser Phe Tyr Cys Pro His Cys Tyr Glu Phe 55 Glu Gln Val Leu His Val Ser Asp Asn Val Lys Lys Leu Pro Glu 75 Gly Thr Lys Met Thr Lys Tyr His Val Glu Phe Leu Gly Pro Leu Gly 85 90 Lys Asp Leu Thr Gln Ala Trp Ala Val Ala Ile Ala Leu Gly Val Glu 100 105 110 Asp Lys Ile Thr Ala Pro Met Phe Glu Ala Val Gln Lys Thr Gln Thr 115 120 125 Val Gln Thr Thr Ala Asp Ile Arg Lys Val Phe Val Asp Ala Gly Val 135 140 Lys Gly Glu Asp Tyr Asp Ala Ala Trp Asn Ser Phe Val Val Lys Ser 150 155 Leu Val Ala Gln Gln Glu Lys Ala Ala Ala Asp Phe Gln Leu Gln Gly 165 170 Val Pro Ala Met Tyr Val Asn Gly Lys Tyr Gln Val Asn Met Arg Gly 180 185 190 Met Asp Thr Thr Ser Met Asp Ile Phe Val Gln Gln Tyr Ala Asp Thr 200 205 Val Lys Tyr Leu Val Glu Lys Lys <210> 5953 <211> 88 <212> PRT <213> Enterobacter cloacae <400> 5953 Asp Ala Gln Pro Ala Asn Leu Leu His Arg Gly Arg Lys Arg Ser Ala 10 Trp Thr Ile Pro Glu Gly Ala Thr Ala Pro Gln Ala Ala Asp Lys Ile 25 His Thr Asp Phe Val Lys Gly Phe Ile Arg Thr Gln Thr Ile Val Phe 40 Glu Asp Phe Ile Thr Tyr Lys Gly Glu Gln Gly Ala Lys Glu Thr Gly 55 Lys Met Arg Ala Glu Gly Lys Asp Tyr Ile Ile Lys Asp Gly Asp Val 70 Met Asn Phe Leu Phe Asn Leu 85

<sup>&</sup>lt;210> 5954

<sup>&</sup>lt;211> 83

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

 <400> 5954

 Cys Gln Arg Met Thr Phe Ser Cys Val Arg Arg Leu Cys Val Thr Phe 1

 Ser Ala Glu Ser Ser Ser Gly Lys Gly Ser Val Glu Val Ala Val Tyr 20

 Ala Ala Val Glu Ser Asp Ile Ala Glu Ile Ile Asp Gly Asp His Lys 35

 Glu Phe Met Ala Glu Arg Gly Leu Asn Arg Val Ile Arg Ala Gly Tyr 50

 Glu Leu Leu Ser Leu Gln Thr Tyr Phe Thr Ala Gly Val Lys Glu Val 65

 Asn Ala

<210> 5955 <211> 102 <212> PRT <213> Enterobacter cloacae

<210> 5956 <211> 444 <212> PRT <213> Enterobacter cloacae

100

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150
                                        155
Asp Val Pro Leu Thr Tyr Val Tyr Ser Asp Gln Asp Ser Tyr Asp Pro
                165
                                    170
Leu Ala Arg Ile Asp Gly Val Asp Ala Gln Glu Ile Phe Trp Phe His
                                185
Cys Gln Pro Asn Gly Thr Pro Glu Arg Met Thr Asp Ser Glu Gly Gln
                            200
                                                 205
Val Arg Trp Glu Gly Val Asn Ser Ala Trp Gly Lys Leu Leu Arg Glu
                        215
                                             220
Ser Glu Thr Gln Val Ser Gly Tyr Phe Gln Asn Leu Arg Met Gln Gly
                    230
                                         235
Gln Tyr Leu Asp Arg Glu Thr Gly Leu His Tyr Asn Leu Phe Arg Tyr
                                    250
                245
Tyr Asp Pro Asp Cys Gly Arg Phe Thr Gln Gln Asp Pro Ile Gly Leu
            260
                                265
                                                     270
Ala Gly Gly Ile Asn Leu Tyr Gln Tyr Ala Pro Asn Ala Leu Gly Trp
        275
                            280
Val Asp Pro Trp Gly Leu Ser Arg Glu Cys Ser Gly Lys Thr Lys Pro
                        295
    290
                                             300
Asp Phe Tyr Val Gly Pro Asn Gly Pro Ser Ser Thr Met Pro Ser Thr
                    310
                                         315
Ala Tyr Arg Tyr Met Asp Ser Lys Tyr Ala Pro Gln Thr Ile Glu Asn
                325
                                    330
Lys Ser Ala Pro Leu Ser Tyr Phe Gly Tyr Thr Lys Tyr Lys Ser Ala
            340
                                345
                                                     350
His Glu Ala Arg Asp Ala Tyr Gln Ile Phe Tyr Glu Lys Gly Asn Pro
                            360
Asp Ser Trp Ser Asp Ala Arg Leu Leu Gly Glu Phe Asp Thr Leu Gln
                        375
                                             380
Leu Tyr Lys Asn Gly Val Pro Gln Val Gln Val Pro Leu Ala Asn Gly
                    390
                                         395
Gly Arg Gly Pro Gly Tyr Glu Leu Phe Thr Ser Ala Tyr Pro Glu Tyr
                405
                                     410
Gly Lys Gly Gly Ala Leu Gln Leu Leu Pro Ile Glu Arg Asn Tyr Pro
            420
                                425
Val Ile Phe Glu Arg Val Thr Ile Ile Pro Glu
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<210> 5957

<211> 268

<212> PRT

<213> Enterobacter cloacae

<400> 5957

Thr Gln Lys Ile Ser Leu Ser Leu Lys Glu Leu Lys Val Gly Gly 10 Val Val Glu Val Lys Ile Tyr Tyr Lys Gly Ser Val Asp Phe Ile 25 Ala Gly Glu Gly Thr Ile Leu Asn Glu Phe Ile Gly Glu Val Ala Thr 40 4.5 Arg Gln Ile Asn Ile Ile Asp Gly Asn Tyr Tyr Ala Ser Ser Leu 55 60 Leu Asp Lys Lys Glu Lys Val Gly Phe Leu Leu Tyr Asp Gly Lys Lys 70 75 Ser Asp Leu Asn Leu Ser Asp Ala Glu Glu Ile Ser Asn Glu Glu Phe 85 90 Glu Val Phe Trp Gln Thr Ser Thr Gly Ser Leu Gln Glu Lys Lys Arg 105 Ile Lys Tyr Leu Ser Gly Asp Ala Val Glu Pro Leu Lys Lys Ser Thr 120 Val Ile Ala His Ile Val Asn Asn Lys Gly Lys Trp Gly Lys Gly Phe

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135
Val Leu Ser Leu Ser Asn Lys Tyr Pro Ala Ala Lys Lys Ser Tyr Leu
                    150
                                        155
Ser Cys Phe Lys Glu Asn Asn Phe Pro Glu Leu Gly Val Val Asp Phe
                165
                                    170
                                                         175
Val Met Val Asp Ala Gln Glu Lys Ile Phe Ile Ala Asn Met Tyr Ala
            180
                                 185
Gln Asp Gly Ile Lys Lys Asn Ile Asn Asp Lys Lys Gln Tyr Val Cys
                            200
        195
Tyr Asp Ser Leu Lys Val Cys Leu Glu Lys Leu Ser Asp Phe Ala Leu
    210
                        215
Val Asn Arg Leu Ser Ile Gln Met Pro Arg Ile Gly Ala Gly Leu Gly
                    230
                                         235
Gly Gly Asp Trp Asn Val Ile Glu Ser Leu Ile Leu Lys Asn Ile Cys
                                     250
Tyr Lys Met Ile Asp Cys Asn Val Ile Thr Leu
<210> 5958
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5958
Ser Phe Lys Glu Gln Arg Met Leu Ile Leu Thr Arg Arg Val Gly Glu
                                    10
Thr Leu Met Ile Gly Asp Glu Val Thr Val Thr Val Leu Gly Val Lys
            20
                                25
Gly Asn Gln Val Arg Ile Gly Val Asn Ala Pro Lys Glu Val Ser Val
                            40
                                                4.5
His Arg Glu Glu Ile Tyr Gln Arg Ile Gln Ala Glu Lys Ser Gln Gln
   50
Ser Ser Tyr
<210> 5959
<211> 89
<212> PRT
<213> Enterobacter cloacae
<400> 5959
Ile Gln Phe Gly Asn Thr Lys Gly Ala His Lys Arg Phe Asp Asn Leu
                                    10
Gly Arg Trp Gly Thr Pro Ala Leu Ala Val Arg Ala Thr Glu Ile Phe
                                25
Leu Arg Ser Trp Arg Pro His Tyr Gly Ala Ala Leu Pro Gly Ser Ala
                            40
Glu Glu Asp Gly Asp Arg Tyr Ile Glu Ile Trp Asn Ile Val Phe Met
                        55
Gln Phe Asn Arg Gln Ala Asp Gly Thr Met Glu Pro Leu Pro Lys Thr
                    70
Val Arg Arg Tyr Arg Tyr Gly Pro
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<210> 5960
<211> 707
<212> PRT
<213> Enterobacter cloacae
<400> 5960
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Ala Gly Gly Pro Arg Pro Leu Arg Tyr Val Pro Pro Arg Phe Phe

10 Tyr Asp His Gly Asp His Ile Met Gly Arg Pro Ser Arg Glu Ala Arg 25 Lys Lys Met Ala Ile Ala Ile Leu Arg Ser Gly Thr Leu Ser Ser Cys 40 Ser Ser Thr Val Arg Arg Thr Ala Pro Trp Ser Arg Cys Pro Lys Pro Ser Val Asp Thr Gly Met Gly Leu Glu Arg Ile Ala Ala Val Leu Gln His Val Asn Ser Asn Tyr Glu Ile Asp Leu Phe Ser Thr Leu Ile Lys Ala Val Ala Glu Val Thr Gly Ala Thr Asp Leu Ser Asn Lys Ser Leu 105 Arg Val Ile Ala Asp His Ile Arg Ser Cys Ala Phe Leu Ile Ala Asp 120 125 Gly Val Ile Pro Ser Asn Glu Asn Arg Gly Tyr Val Leu Arg Arg Ile 135 140 Ile Arg Arg Ala Ile Arg His Gly Asn Met Leu Gly Ala Lys Asp Thr 155 150 Phe Phe Tyr Lys Leu Val Gly Pro Leu Ile Gly Val Met Gly Ser Ala 165 170 Gly Asp Glu Leu Lys Arg Gln Gln Ala Gln Val Glu Gln Val Leu Lys 180 185 Thr Glu Glu Glu Gln Phe Ala Arg Thr Leu Glu Arg Gly Leu Ala Leu 195 200 205 Leu Asp Asp Glu Leu Ala Lys Leu Lys Gly Asp Thr Leu Asp Gly Glu 215 220 Thr Ala Phe Arg Leu Tyr Asp Thr Tyr Gly Phe Pro Val Asp Leu Thr 230 235 Ala Asp Val Cys Arg Glu Arg Asn Ile Lys Val Asp Glu Ala Gly Phe 245 250 Glu Ala Ala Met Glu Glu Gln Arg Arg Ala Arg Glu Ser Ser Gly 265 Phe Gly Ala Asp Tyr Asn Ala Met Ile Arg Val Asp Ser Ala Ser Glu 280 Phe Lys Gly Tyr Glu Glu Leu Ala Leu Thr Ser Asn Val Thr Ala Leu Phe Val Asp Gly Lys Ala Val Asp Ser Ile Ser Ala Gly Gln Asp Ala 315 Val Val Ile Leu Asp Lys Thr Pro Phe Tyr Ala Glu Ser Gly Gln 330 Val Gly Asp Lys Gly Glu Leu Lys Gly Asn Gly Phe Ser Phe Ser Val 345 Ser Asp Thr Gln Lys Tyr Gly Gln Ala Ile Gly His Gln Gly Lys Leu 360 Val Ser Gly Ser Leu Lys Val Gly Glu Gly Val Gln Ala Asn Val Asp 375 380 Glu Ala Arg Arg Ala Arg Ile Arg Leu Asn His Ser Ala Thr His Leu 395 390 Met His Ala Ala Leu Arg Glu Val Leu Gly Thr His Val Ala Gln Lys 405 410 Gly Ser Leu Val Asn Asp Lys Val Leu Arg Phe Asp Phe Ser His Phe 420 425 430 Glu Ala Met Lys Pro Ser Glu Ile Arg Ala Val Glu Asp Leu Val Asn 440 Ala Gln Ile Arg Arg Asn Leu Pro Ile Glu Thr His Ile Met Asp Leu 455 460 Glu Ala Ala Lys Lys Gly Ala Met Ala Leu Phe Gly Glu Lys Tyr 470 475 Asp Asp Arg Val Arg Val Leu Ser Met Gly Asp Phe Ser Thr Glu Leu 490

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Cys Gly Gly Thr His Ala Ser Arg Thr Gly Asp Ile Gly Leu Phe Arg
                                 505
 Ile Val Ser Glu Ser Gly Thr Ala Ala Gly Val Arg Arg Ile Glu Ala
                             520
                                                 525
         515

    Val Thr Gly Glu Gly Ala Ile Ala Ser Leu His Ala Gln Ser Asp Gln

                         535
                                             540
 Leu His Glu Ile Ala Gln Leu Leu Lys Gly Asp Ser Gln Asn Leu Gly
                     550
                                         555
 Glu Lys Val Arg Val Ala Leu Asp Arg Thr Arg Gln Leu Glu Lys Glu
                 565
                                     570
                                                         575
 Leu Gln Gln Leu Lys Glu Gln Ala Ala Gln Glu Ser Ala Asn Leu
                                 585
 Ser Ser Lys Ala Val Asp Ile Lys Gly Val Lys Leu Leu Val Ser Asp
                             600
 Leu Ala Gly Val Glu Pro Lys Met Leu Arg Thr Met Val Asp Asp Leu
                         615
                                             620
 Lys Asn Gln Leu Gly Ser Thr Val Ile Val Leu Ala Thr Val Ala Glu
                     630
                                         635
 Gly Lys Val Ser Leu Ile Ala Gly Val Ser Lys Asp Val Thr Asp Arg
                                     650
                 645
 Val Lys Ala Gly Glu Leu Ile Gly Met Val Ala Gln Gln Val Gly Gly
                                 665
             660
 Lys Gly Gly Arg Pro Asp Met Ala Gln Ala Gly Gly Thr Asp Ala
                             680
        675
                                                 685
 Ala Ala Leu Pro Ala Ala Leu Ala Ser Val Glu Ser Trp Val Ser Ala
                         695
    690
 Lys Leu
 705
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 <211> 299
 <212> PRT
 <213> Enterobacter cloacae
 <400> 5961
 Val Ser Pro Leu Ile Gln Leu Leu Asp Arg Pro Ile Ala Tyr Gln Pro
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 Ala Phe Ala Gln Leu Arg Ala Gly Lys Val Lys Ser Gly Pro Ala Ala
                                 25
 Ala Val Leu Leu Ser Gln Leu Val Tyr Trp His Asn Arg Met Asp Gly
                             40
                                                 45
 Glu Trp Leu Tyr Lys Thr Arg Glu Asp Ile Lys Lys Glu Thr Gly Leu
                         55
                                             60
 Ser Arg Asp Glu Gln Glu Thr Ala Arg Lys Arg Leu Val Ala Leu Gly
                     70
                                         75
 Val Leu Gln Glu Asp Leu Arg Gly Val Pro Ala Thr Val His Tyr Arg
                                     90
 Ile Asn Thr Glu Arg Leu Glu Ala Leu Leu Ala Pro Gly Gln Ala
                                 105
 Glu Ser Gln Leu Gly Ala Thr Pro Pro Thr Arg Arg Gln Pro Arg
                             120
                                                 125
 Gln Gln Asp Gly Gly Asn Ala Pro Asn Lys Met Val Glu Thr Pro Pro
                         135
                                             140
 Thr Arg Arg Val Glu Pro Thr Gln Gln Val Gly Trp Val Pro Ala Asn
                     150
                                         155
 Phe Pro Thr Gly Asp Tyr Thr Glu Ile Thr Gln Glu Ser Thr Gln Glu
                 165
                                     170
 Ile Thr Gln Lys Ala Gly Glu Lys Asn Ser Val Asp Asn Phe Ser Glu
                                 185
                                                     190
 Ile Tyr Pro Glu Ala Glu Ile Phe Asp Ala Glu Lys Lys Thr Trp Gly
```

200

195

Thr Ala Glu Asp Leu Glu Phe Ala Gln Trp Phe Phe Ala Arg Ile Val 215 220 Glu Leu His Glu Lys Ala Ala Glu Tyr Asp Gly Met Leu Ser Arg Pro 230 235 Lys Glu Pro Asp Trp Thr Gly Trp Ala Asp Glu Val Arg Gln Leu Arg 245 250 Glu Gly Gln Arg Cys Asp His Gln Ala Asp Ala Lys Pro Gly Arg Ala 260 265 270 Tyr Ser Ala Arg Pro Val Gly Gly Ala Arg Arg Phe Arg Leu Pro Lys 280 285 Cys Cys Thr Pro Asn Gly Gln Asn Trp Ser 290 295 <210> 5962 <211> 219 <212> PRT <213> Enterobacter cloacae <400> 5962 Met Glu Thr Val Leu Asp Val Leu Lys Ala Met Gly Lys Thr Thr Tyr Arg Asp Val Ala Ala Arg Leu Asp Ile Glu Pro Val Val Ala Leu Asn 25 Met Leu Arg Glu Gln Lys Glu Gln Gly Leu Cys Asp Tyr Ala Asp Gly 45 Gly Trp Phe Leu Gly Thr Ala Ala Lys Gln Lys Pro Lys Arg Ile Arg 55 Pro Lys Gln Glu Ser Glu Leu Val Gly Arg Ile Leu Ala Val Met Gln 70 75 Gly Gln Gly Ala Ile Ser Ala Glu Lys Ile Ala Lys Leu Leu Gly Lys 85 90 Thr Ser Arg Ala Leu Asn Ala Ser Leu Gly Ala Leu Gly Lys Glu Gly 100 105 110 Arg Val Val Arg His Val Asp Gly Lys Asn Ile Thr Trp Ser Leu Lys 120 125 Asn Asp Asp Ala Pro Ala Pro Ala Thr Ala Ala Pro Ile Ala Asn Ala 135 140 Arg Gln Ala Glu Ser Ala Leu Ala Glu Lys Ser Thr Ala Gln Ile Ile 150 155 Glu Glu Ile Pro Ala Phe Thr Ala Arg Pro Asn Asp Leu Ala Ile Pro 165 170 Ser Ser Arg Phe Ile Ser Ser Glu Ile Arg Arg Thr Lys Ala Lys Leu 185 Ala Ser Leu Gln Lys Leu Gln Cys Ala Ala Arg Gln Leu Arg Arg His 200 Lys His Leu Leu Val Gly Leu Asp Asn Glu <210> 5963 <211> 139 <212> PRT <213> Enterobacter cloacae <400> 5963 Leu Met Glu Ile Lys His Glu His Ile Gln Cys Val Leu Leu Ala Trp 10 Ala Ala Glu Val Gly Gln Ala His Ala Ala Glu Ala Ile Thr Ala Glu 25 Tyr Thr Arg Gln Gly Gly Ala Glu Leu Pro Leu Val Ala Gly Asn Thr

35 40 45
Trp Asn Asn Gln Gln Asn Ile Phe His Arg Trp Leu Asp Gly Ser Thr

55 Pro Gln Arg Arg Ala Lys Ile Arg Glu Leu Leu Pro Ala Ile Leu Ala 70 Val Leu Pro Arg Ser Ile Arg His Arg Leu Ser Ile Tyr Asp Thr Ile 90 Glu Arg Arg Ala Leu Leu Ala Ala Gln Asp Ala Leu Gly Ala Ala Ile 105 Asp Ala His Asp Asp Ala Val Glu Ala Leu Phe Gln Lys Val Met Gln 120 His Ala Ala Asp Ser Pro Lys Phe His 135 130 <210> 5964 <211> 126 <212> PRT <213> Enterobacter cloacae <400> 5964 Val His Arg Gly Asp Val Val Ser Val Lys Cys Cys Gly Cys Gln Glu Leu Leu Glu Glu Asp Glu Val Phe Lys Leu Ala Asp Ser Cys Gly Val Asp Ile Cys Asp Arg Cys Ala Ser Arg Val Val His Ser Tyr Asn Glu Trp His Gly Gly Phe Ser Tyr Ala Pro Val Lys Gln Lys Asn Pro Arg 55 Lys Ser Ile Ser Ala Ala Val Lys Leu Lys Ile Phe Gln Arg Asp Gly 75 Phe Arg Cys Lys His Cys Gly Thr Ser Glu Ala Leu Thr Ile Asp His Ile Gln Pro Val Ser Lys Gly Gly Ser Asn Gln Asp Glu Asn Leu Gln 105 Thr Leu Cys Ala Ser Cys Asn Ser Arg Lys Gly Val Lys . 120 <210> 5965 <211> 205 <212> PRT <213> Enterobacter cloacae <400> 5965 Arg Lys Asn Gly Leu Ala Tyr Ile Asn Ala Val Tyr Pro Phe Asn Phe 10 Ile Ile Pro Leu Gly Ile Ser Ala Cys Leu Ala Tyr Ile Leu Pro Ile 25 Ile Asn Glu Lys Ile Thr Tyr Leu Gln Ser Arg Pro Ile Ser Arg Thr 40 Ala Ile Leu Leu Ser Ile Arg Ala Lys Lys Ala Leu Val Ala Asp Ile 55 Ser Leu Glu Lys Tyr Arg Ala Lys Arg Asp Val Thr Tyr Glu Arg His 70 7.5 Val Ala Gly Ala Glu Lys Glu Ile Gln Asp Met Arg Glu Glu Ile Val Asn Ser Lys Glu Arg Val Gly Glu Met Asn Ala Ala Leu Leu Glu Leu 105 Asn Gln Lys Asn Asp Glu Ile Asn Ala Leu Leu Gln Asp Ser Asn Ile 120 Arg Asn Lys Lys Leu Ser Asp Glu Ile Glu Arg His Lys Ile Ala Glu 135 140 Thr Arg Phe Phe Gly Glu Ile Glu Asp Leu Asn Lys Glu Leu Asp Arg 150 155

Leu Tyr Ser Leu Leu Lys Met Glu Pro Thr Arg Gly Val Gly Leu Gly 165 170 Ile Arg Lys Ile Thr Thr Ile Asn Gly Glu Glu Asn Ser Asp Thr Asp 185 Asp Thr Gln Tyr Arg Pro Gly Ser Asn Glu Asp Lys 200 <210> 5966 <211> 242 <212> PRT <213> Enterobacter cloacae <400> 5966 Val Ala Asn Met Gln Thr Pro His Ile Leu Ile Val Glu Asp Glu Leu Val Thr Arg Asn Thr Leu Lys Ser Ile Phe Glu Ala Glu Gly Tyr Asp Val Phe Glu Ala Thr Asp Gly Ala Glu Met His Gln Ile Leu Ser Glu 40 45 Asn Asp Ile Asn Leu Val Ile Met Asp Ile Asn Leu Pro Gly Lys Asn 55 Gly Leu Leu Ala Arg Glu Leu Arg Glu Gln Ala Asn Val Ala Leu 70 7.5 Met Phe Leu Thr Gly Arg Asp Asn Glu Val Asp Lys Ile Leu Gly Leu 85 90 Glu Ile Gly Ala Asp Asp Tyr Ile Thr Lys Pro Phe Asn Pro Arg Glu 105 100 Leu Thr Ile Arg Ala Arg Asn Leu Leu Ser Arg Thr Met Asn Leu Gly 120 125 Thr Val Ser Glu Glu Arg Arg Ser Val Asp Ser Tyr Lys Phe Asn Gly . 130 135 140 Trp Glu Leu Asp Ile Asn Ser Arg Ser Leu Ile Ser Pro Asn Gly Glu 150 155 Gln Tyr Lys Leu Pro Arg Ser Glu Phe Arg Ala Met Leu His Phe Cys 170 165 Glu Asn Pro Gly Lys Ile Gln Ser Arg Ala Glu Leu Leu Lys Lys Met 180 185 190 Thr Gly Arg Glu Leu Lys Pro His Asp Arg Thr Val Asp Val Thr Ile 200 205 Arg Arg Ile Arg Lys His Phe Glu Ser Thr Pro Asp Thr Pro Glu Ile 215 220 Ile Ala Thr Ile His Gly Glu Gly Tyr Arg Phe Cys Gly Asp Leu Gln 230 Glu <210> 5967 <211> 229 <212> PRT <213> Enterobacter cloacae <400> 5967 Met His Leu Ser Ile Val Leu Val Ala Pro Ala Arg Ala Glu Asn Ile 10 Gly Ala Ala Arg Ala Met Lys Thr Met Gly Phe Thr Asp Leu Arg 25 Ile Val Asp Ser Thr Ala His Leu Glu Pro Ala Ala Arg Trp Val Ala His Gly Ser Gly Asp Ile Leu Asp Asn Ile Thr Thr Tyr Ala Thr Leu

55

Ala Asp Ala Leu His Asp Ile Ser Phe Thr Val Ala Thr Thr Ala Arg

```
70
                                        75
Ser Arg Ala Lys Phe His Tyr Tyr Ala Thr Pro Ala Glu Leu Val Pro
                                    90
Met Leu Glu Glu Lys Ser Gln Trp Leu Glu Lys Ala Ala Leu Val Phe
                                105
Gly Arg Glu Asp Ser Gly Leu Thr Asn Glu Glu Leu Ala Leu Ala Asp
                            120
Val Leu Thr Gly Ala Pro Met Val Ala Asp Tyr Pro Ser Leu Asn Leu
                        135
                                            140
Gly Gln Ala Val Met Val Tyr Cys Tyr Gln Leu Ala Ser Leu Ile Gln
                    150
                                        155
Ile Ser Gln Pro Pro Val Thr Val Ser Asp Glu Ásn Gln Leu Ala Ala
                                    170
                165
Leu Arg Val Arg Ala Asp Lys Leu Leu Ala Gln Leu Gly Val Ala Asp
                               185
            180
Asp Gln Lys Met Val Asp Trp Leu Gln Gln Arg Leu Gly Arg Leu Glu
                          200
Gln Arg Asp Thr Val Met Leu His Arg Leu Leu His Asp Ile Glu Lys
                        215
Lys Leu Ala Glu
225
<210> 5968
<211> 160
<212> PRT
<213> Enterobacter cloacae
<400> 5968
Gly Asn Asn Met Lys Tyr Lys Val Leu Val Phe Ala Ala Leu Ala Leu
Met Ala Gly Arg Val Ala Gln Ala Glu Gln Ile Gly Ser Val Asp Thr
                                25
Val Phe Lys Met Phe Gly Pro Asp His Lys Ile Val Val Glu Ala Phe
Asp Asp Pro Asp Val Lys Asn Val Thr Cys Tyr Val Ser Arg Ala Lys
Thr Gly Gly Ile Lys Gly Gly Leu Gly Leu Ala Glu Asp Thr Ser Asp
Ala Ala Ile Ser Cys Gln Gln Val Gly Pro Val Glu Leu Ser Asp Lys
                                    90
Ile Lys Asn Gly Lys Ala Gln Gly Asp Val Val Phe Gln Lys Arg Thr
                                105
Ser Leu Val Phe Lys Lys Leu Gln Val Val Arg Phe Tyr Asp Ala Lys
                            120
Arg Asn Thr Leu Ala Tyr Leu Ala Tyr Ser Asp Lys Val Val Glu Gly
                       135
                                            140
Ser Pro Lys Asn Ala Ile Ser Ala Val Pro Ile Met Pro Trp His
                    150
                                        155
<210> 5969
<211> 288
<212> PRT
<213> Enterobacter cloacae
<400> 5969
Lys Lys Cys Leu Ser Ala Leu Arg Gln Ile Leu Glu Lys Ser Thr Arg
Leu Ile Met Ser Gly Ser Ser Gln Asp Asp Phe Thr Gly Ala Asp Met
                                25
Phe Arg Arg Leu Arg Asp Ile Ile Lys Arg Gly Val Val Lys Glu Val
```

```
Gln Met Gln Pro Pro Arg Val Arg Val Thr Phe Gly Glu His Gln
Ser Gly Trp Leu Gln Trp Phe Thr Leu Ala Thr Ser Glu Arg Val Asp
                                        75
Trp Ser Ala Pro Lys Val Gly Asp Pro Val Pro Pro Asn Ser Thr Ala
                85
                                    90
Ala Glu Arg Ala Leu Glu Ala Val Leu Ser His Val Gly Asp Leu Pro
                                105
            100
Gly Asp Ile Arg Ile Ile Lys Asn Pro Asp Leu Cys Pro Val Asp Leu
                            120
        115
Leu Pro Trp Leu Ala Trp Glu Tyr Ala Val Thr Tyr Trp Asn Ser Gly
                        135
                                            140
Trp Ser Glu Gln Gln Lys Arg Gln Val Ile Lys Ala Ala Ala Trp Gln
                    150
                                        155
Asn Lys His Arg Gly Thr Arg Gly Ala Val Glu Arg Ala Leu Leu Thr
                165
                                    170
Val Gly Tyr Glu Ser Gln Leu Gln Glu Trp Phe Glu Lys Val Pro Lys
                                185
Gly Asp Pro Tyr Thr Phe Gly Ile Lys Ile Tyr Leu Leu Lys Gln Met
                            200
Gly Met Asp Leu Asp Leu Leu Asn Thr Phe Ile Ala Gln Ile Phe Asp
                        215
Ala Lys Asn Cys Arg Ser Leu Leu Glu Ser Ile Asn Phe Glu Ala Glu
                    230
                                        235
Ile Asp Gly Glu Phe Tyr Ile Ala Gly Thr Thr Ala Ala Asp Val Val
                245
                                    250
Val Glu Ile Pro Ala Glu Asp Glu Gly Gly Val Lys Val Asn Gly Ser
                                265
Leu Phe Ile Ser Gly Val Pro Thr Ala His Ile Thr Val Glu Ile
                            280
<210> 5970
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<211> 280

<212> PRT

<213> Enterobacter cloacae

<400> 5970

Gly Gly Ser Lys Ser Lys Arg Leu Pro Val Tyr Phe Gly Cys Thr Asp 10 Ser Ser Tyr His Ser Gly Asn Ile Glu Met Val Gln Lys Arg Thr Ala 25 Leu Lys Ser Ala Thr Ser Thr Pro Asp Asp Lys Ile Tyr Ala Ile Leu 45 40 Thr Asp Arg Gly Ala Glu Leu Glu Ala Ala Ala Leu Ala Thr Gly Val 55 Pro Val Lys Leu Thr Lys Phe Val Ile Gly Asp Ala Asn Gly Gln Glu 75 70 Glu Val Thr Pro Asp Pro Ala Arg Thr Ala Leu Ile His Glu Val Tyr 8.5 90 Arg Gly Asp Ile Asn Gly Ala Glu Ser Lys Gly Asn Gln Val Thr Phe 105 Thr Leu Asp Val Pro Pro Glu Thr Gly Gly Tyr Thr Ile Arg Glu Val 120 Gly Ile Leu Thr Glu Ala Gly Glu Leu Tyr Ser Val Ala Arg Ser Pro 135 Asp Ile Leu Lys Pro Thr Glu Ser Asn Gly Ala Val Ile Ser Ile Thr 150 155 Phe Lys Tyr Ile Leu Ala Val Ser Ser Thr Ser Thr Val Thr Val Val 165 170 Val Tyr Asn Asp Tyr Leu Thr Pro Asp Ala Ala Asp Ala Arg Tyr Leu 185

```
2288
Lys Val Asn Ala Asn Leu Lys Glu Ile Ala Asp Asn Gly Ala Ser Ser
       195
                            200
Gln Gln Leu Ala Arg Lys Asn Ile Gly Ile Asp Gly Asp Ile Ala Tyr
                        215
                                            220
Arg Asp Lys Glu Asn Ile Phe Thr Lys Lys Asn Thr Phe Gly Glu Ile
                    230
                                        235
Leu Tyr Val Asn Lys Ser Ile Val Leu Ser Gly Asp Trp Ala Val Ser
                245
                                    250
Trp Ser Leu Ala Gly Ala Tyr Ile Glu Ala Tyr Leu Val His Ser Lys
            260
                                265
Leu Pro Asp Arg Leu Phe Ser Thr
        275
<210> 5971
<211> 119
<212> PRT
<213> Enterobacter cloacae
<400> 5971
Arg Cys Arg Ala Ala Leu Leu Gln Ala Ile Leu Asp Gly Val Ala Gln
His Gly Pro Tyr Phe Val Ile Ala Pro Gly Leu Ala Met Pro His Gly
            20
Arg Pro Glu Glu Gly Val Lys Lys Thr Gly Phe Ala Leu Val Thr Leu
                            40
Lys Thr Pro Leu Val Phe Asn His Glu Asp Asn Asp Pro Val Asp Ile
Leu Ile Thr Met Ala Ala Val Asp Ala Asn Thr His Gln Glu Val Gly
                    70
Ile Met Gln Ile Val Asn Leu Phe Asp Asp Glu Ala Asn Phe Asp Arg
                                    90
Leu Arg Ala Cys Arg Thr Ala Gln Asp Val Leu Asp Leu Ile Asp Asn
            100
                                105
Ala Thr Ala Ala Ala Val
        115
```

<210> 5972

<211> 221

<212> PRT

<213> Enterobacter cloacae

<400> 5972

Glu Glu Leu Lys Met Ser Leu Pro Met Leu Gln Val Ala Leu Asp Asn 10 Gln Thr Leu Ser His Ala Tyr Glu Thr Thr Arg Leu Ile Ala Glu Glu 25 Val Asp Ile Ile Glu Val Gly Thr Ile Leu Cys Val Gly Glu Gly Val 40 4.5 Arg Ala Val Arg Asp Leu Lys Ala Leu Tyr Pro His Lys Ile Val Leu 55 60 Ala Asp Ala Lys Ile Ala Asp Ala Gly Lys Ile Leu Ser Arg Met Cys 70 75 Phe Glu Ala Asn Ala Asp Trp Val Thr Val Ile Cys Cys Ala Asp Ile 85 90 Asn Thr Ala Lys Gly Ala Leu Asp Val Ala Lys Glu Phe Asn Gly Asp 105 Val Gln Ile Glu Leu Thr Gly Phe Trp Thr Trp Glu Gln Ala Gln Glu 120 125 Trp Arg Glu Ala Gly Ile Gln Gln Val Val Tyr His Arg Ser Arg Asp 135 140 Ala Gln Ala Ala Gly Val Ala Trp Gly Glu Ala Asp Ile Ser Ala Ile

<400> 5974

```
150
                                       155
Lys Arg Leu Ala Asp Met Gly Phe Lys Val Thr Val Thr Gly Gly Leu
                                    170
               165
Ala Leu Glu Asp Leu Pro Leu Phe Lys Gly Ile Pro Ile His Val Phe
                               185
Ile Ala Gly Arg Ser Ile Arg Asp Ala Glu Ser Pro Val Glu Ala Ala
                            200
Arg Gln Phe Lys Arg Ser Ile Ala Gln Leu Trp Gly
                        215
<210> 5973
<211> 290
<212> PRT
<213> Enterobacter cloacae
<400> 5973
Gly Ala Gly Met Leu Ser Lys Gln Val Pro Leu Gly Ile Tyr Glu Lys
Ala Leu Pro Ala Gly Glu Cys Trp Leu Glu Arg Leu Gln Leu Ala Lys
                                25
Gln Leu Gly Phe Asp Phe Val Glu Met Ser Leu Asp Glu Thr Asp Glu
                            40
Arg Leu Ala Arg Leu Asp Trp Ser Arg Asp Gln Arg Leu Ala Leu Val
                        55
Ser Ala Ile Ala Glu Thr Gly Val Arg Val Pro Ser Met Cys Leu Ser
Ala His Arg Arg Phe Pro Leu Gly Ser Glu Asp Asp Ala Val Arg Ala
                85
Glu Gly Leu Glu Ile Met Arg Lys Ala Ile Arg Phe Ala Gln Asp Val
           100
                                105
Gly Ile Arg Val Ile Gln Leu Ala Gly Tyr Asp Val Tyr Tyr Gln Glu
                            120
                                                125
Ala Asn Asp Glu Thr Arg Arg Phe Arg Asp Gly Leu Lys Glu Ser
                        135
                                            140
Val Glu Met Ala Ser Arg Ala Gln Val Thr Leu Ala Met Glu Ile Met
                    150
                                        155
Asp Tyr Pro Leu Met Asn Ser Ile Ser Lys Ala Leu Gly Tyr Ala His
                                    170
               165
Tyr Leu Asn Asn Pro Trp Phe Gln Leu Tyr Pro Asp Ile Gly Asn Leu
                                185
                                                    190
Ser Ala Trp Asp Asn Asp Val Gln Met Glu Leu Gln Ala Gly Ile Gly
                            200
His Ile Val Ala Val His Val Lys Asp Thr Arg Pro Gly Val Phe Lys
                                            220
                        215
Asn Val Pro Phe Gly Thr Gly Val Val Asp Phe Glu Arg Cys Phe Gln
                    230
                                        235
Thr Leu Lys Gln Thr Gly Tyr Cys Gly Pro Tyr Leu Ile Glu Met Trp
               245
                                    250
Ser Glu Thr Ala Asp Asp Pro Ala Ala Glu Val Ala Lys Ala Arg Asp
                               265
Trp Val Cys Glu Arg Met Ala Arg Ala Gly Leu Met Glu Ala Glu His
                            280
   290
<210> 5974
<211> 218
<212> PRT
<213> Enterobacter cloacae
```

```
Thr Trp Cys Gln Ala Asp Gly Arg Val Lys Pro Gln Leu Ala Val Leu
                                    10
Tyr Pro Cys Lys Pro Gly Leu Ser Leu Ser Arg Trp Pro Phe Val Ile
                                25
Ile His Pro Arg Gly Val Arg Met Phe Val Ala Glu Leu Ser Glu Ala
Phe Asn Gly Ile Ser Gln Arg Leu Ile Pro Gly Ala Val Leu Ala Ile
                        55
Asp Cys Ala Ala Ile Tyr Ser Phe Ala Pro Asn Ala Val Val Trp Gly
                    70
                                        75
Phe Met Trp Gly Thr Ile Gly Gln Leu Ile Ala Val Gly Ile Leu Val
                                    90
Gly Cys Gly Ser Ser Ile Leu Ile Ile Pro Gly Phe Ile Pro Met Phe
            100
                                105
Phe Ser Asn Ala Thr Ile Gly Val Phe Ala Asn His Phe Gly Gly Trp
                            120
Arg Ala Ala Leu Lys Ile Cys Leu Val Met Gly Met Val Glu Ile Phe
                        135
                                            140
Gly Cys Val Trp Ala Val Lys Leu Thr Gly Met Ser Ala Trp Met Gly
                    150
                                        155
Met Ala Asp Trp Ser Ile Leu Ala Pro Pro Met Met Gln Gly Phe Ala
                165
                                    170
Ser Val Gly Leu Val Phe Met Ala Val Ile Ile Leu Ile Ala Leu Ala
            180
                                185
Tyr Met Phe Phe Ala Gly Arg Ser Leu Arg Ala Glu Glu Asp Ala Glu
                            200
       195
Lys Gln Thr Ala Glu Val Ser Ala His
   210
                        215
<210> 5975
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 5975
Gly Val Ser Ile Met Thr Val Arg Ile Leu Ala Val Cys Gly Asn Gly
                                    10
Gln Gly Ser Ser Met Ile Met Lys Met Lys Val Asp Gln Phe Leu Thr
            20
                                25
Gln Ser Asn Ile Asp His Thr Val Asn Ser Cys Ala Val Gly Glu Tyr
                            40
Lys Ser Glu Leu Asn Gly Ala Asp Ile Ile Ile Ala Ser Thr His Ile
                        55
Ala Gly Glu Ile Ser Val Ser Gly Asn Lys Tyr Val Val Gly Val Arg
                   70
                                        75
Asn Met Leu Ser Pro Ala Asp Phe Gly Pro Lys Leu Leu Glu Val Ile
Lys Glu His Phe Pro Gln Asp Val Lys
<210> 5976
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 5976
Gly Cys His Met Lys Leu Arg Asp Ser Leu Ala Glu Asn Asn Ser Ile
                                    10
Leu Leu Gln Ala Glu Ala Ser Thr Trp Gln Glu Ala Val Lys Leu Ser
                               25
```

Val Asp Leu Leu Val Lys Ala Asp Val Val Glu Pro Arg Tyr Tyr Arg

```
40
Arg Phe Trp Met Ala Trp Arg Ser Met Ala Leu Thr Leu
    50
<210> 5977
<211> 190
<212> PRT
<213> Enterobacter cloacae
<400> 5977
Trp Arg Arg Asn Met Leu Lys Leu Lys Gln Gln Val Phe Glu Ala Asn
                                    10
Met Asp Leu Pro Arg Tyr Gly Leu Val Thr Phe Thr Trp Gly Asn Val
                                25
Ser Ala Ile Asp Arg Glu Gln Gly Leu Val Val Ile Lys Pro Ser Gly
                                                45
                            40
Val Ala Tyr Asp Ala Met Lys Ala Asp Asp Met Val Val Val Asp Leu
                        55
Glu Gly Leu Val Val Glu Gly Lys Trp Arg Pro Ser Ser Asp Thr Ala
                                        75
                   70
Thr His Leu Ala Leu Tyr Gln Arg Tyr Pro Ser Leu Gly Gly Ile Val
               85
                                    90
His Thr His Ser Thr His Ala Thr Ala Trp Ala Gln Ala Gly Leu Ala
           100
                                105
Ile Pro Ala Leu Gly Thr Thr His Ala Asp Tyr Phe Phe Gly Asp Ile
                            120
                                                125
Pro Cys Thr Arg Ala Leu Thr Gln Thr Glu Val Glu Gly Glu Tyr Glu
                       135
                                            140
Leu Asn Thr Gly Arg Val Ile Ile Glu Thr Leu Gly Glu Thr Glu Pro
                   150
                                        155
Leu His Thr Pro Gly Ile Val Val Tyr Gln His Gly Pro Phe Ser Gly
               165
                                   170
Arg Asn Leu His Leu Gly Pro Gly Gly Pro Glu Leu Arg
                                185
<210> 5978
<211> 236
<212> PRT
<213> Enterobacter cloacae
<400> 5978
Lys Ser Ala Arg Tyr Ser Phe Asn Lys Arg Val Arg Thr Ala Ile Phe
                                    10.
Ser Tyr Met Asp Cys Leu Leu Ser Glu Arg Arg Met Pro Met Gln Asn
                                25
Lys Lys Thr Ile His Val Ala Val Val Asp Ser Cys Glu Phe Thr Met
                            40
Ile Gly Leu Gln Ser Leu Gly Lys Arg Glu Pro Asp Glu Lys His Asp
                        55
Val Ile Phe His Gly Phe Thr His Ile Glu Glu Leu Ala Met Ser Glu
                    70
                                        75
Gln Leu Phe Asp Ile Ile Ile Tyr Asp Pro Leu Asn Thr Arg His Phe
                                    90
Arg Val Thr Thr Asn Asp Asp Ile Leu Cys Ile Lys Gln Lys Gln Val
                                105
Thr Ala Lys Ile Tyr Ile Tyr Ser Leu Ser Ala Gly Tyr Leu Lys Phe
                            120
                                                125
Lys His Val Asp Gly Val Ile Ser Lys Arg Val Ser Leu Gly Asp Ile
                        135
                                           140
Lys Ala Leu Trp Gln Ile Leu Met Ser Gln Thr Pro Gln Glu Ser Gly
```

150

```
Arg Tyr Asn Val Gly Met Thr Thr Arg Leu Arg Thr Pro Ala Arg Leu
                                    170
                165
Ser Ser Glu Glu Ala Ser Val Leu Arg Gly Tyr Ser Cys Asn Leu Lys
                                185
Thr Lys Gln Ile Ala Arg Gln Leu Gly Cys Asn Val Arg Leu Val Tyr
                            200
        195
Phe Tyr Lys Asn Asn Ala Met Asn Lys Leu Lys Ala Val Arg Gly Pro
    210 '
                                            220
                        215
Ser Phe Tyr Gln Ser Ile Arg Trp Ile Leu Asn
                    230
<210> 5979
<211> 254
<212> PRT
<213> Enterobacter cloacae
<400> 5979
Ile Lys Asn Leu Thr Val Cys Arg Leu Pro Phe Val Pro Val Ser Ala
Gly Thr Phe Phe Ser Phe Ser Glu Gly Cys Ser Met Tyr Thr Val Leu
Pro Ser Pro Leu Leu Gln Arg Ile Ser Gly Leu Arg Phe Gln Pro Leu
Val Asp Leu His Ser Gly Gln Val Phe Ala His Glu Val Leu Val Glu
                        55
Ile Arg Asn Val Asn Leu Glu Val Leu Phe Ala Ser Leu Pro Ser Arg
Ser Ala Leu Gln Ile Phe Phe Trp Gln Ala Asn Thr Leu Leu Gln Ile
Pro Ala Arg Asp Gly Tyr Trp Leu Asn Leu Pro Ala Glu His Leu Leu
            100
                                105
Asp Glu Arg Ala Ile Arg Leu Leu Leu Ala Leu Arg His Gln Gln Arg
                            120
                                                 125
        115
Leu Thr Ile Glu Ile Gln Asp Pro Leu Thr Ile Thr Arg Leu Ser Glu
                        135
                                            140
Ala Glu Gln Arg His Leu His Ala Thr Leu Val Arg Leu Lys Glu Ala
                    150
                                         155
Gly Trp Gln Ile Trp Leu Asp Asp Leu Thr Arg Glu Leu Ala Glu Ala
                                    170
                165
Phe Ala Arg Leu Ala Leu Pro Leu Asp Gly Val Lys Ile Asp Arg Ser
            180
                                185
                                                     190
Ala Leu Arg Glu Arg Ala Pro Leu Ala Pro Phe Val Gln Glu Val Arg
                            200
                                                 205
        195
Thr Gly Ile Ala Gln Ser Ile Leu Ile Glu Gly Ile Glu Asn Ser Arg
                        215
                                            220
Asp Leu Ala Arg Ala Arg Thr Ser Gly Ala Gln Ser Gly Gln Gly Phe
                    230
                                        235
Leu Trp Pro Glu Ser Arg Thr Asp Ala Arg Val Thr Leu
<210> 5980
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 5980
Gly Gly Asn Asp Ala Arg His Ile Lys Val Gly Val Ile Asn Gly Ala
Glu Gln Asp Val Ala Glu Val Ala Lys Lys Val Ala Lys Glu Lys Tyr
```

Gly Leu Asp Val Glu Leu Val Gly Phe Ser Gly Ser Leu Leu Pro Asn

```
40
Asp Ala Thr Asn Gln Gly Glu Leu Asp Ala Asn Val Phe
    50
<210> 5981
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 5981
His Arg Pro Phe Leu Ala Glu Asp Asn Lys Ala His Asn Tyr Lys Leu
                                    10
Val Ala Val Ala Asn Thr Phe Val Phe Pro Met Ala Gly Tyr Ser Arg
            20
                                25
Lys Ile Lys Ser Val Ser Glu Leu Lys Asp Gly Ala Thr Ile Ala Ile
        35
Pro Asn Asp Pro Thr Asn Leu Gly Arg Ala Leu Leu Leu Gln Lys
Glu Lys Leu Ile Thr Leu Lys Pro Asp Val Gly Leu Leu Pro Thr Ala
                    70
                                        75
Leu Asp Ile Thr Ala Asn Pro Lys Asn Leu Gln Ile Met Glu Leu Glu
                85
                                    90
Gly Ala Gln Leu Pro Arg Val Leu Asp Asp Pro Lys Val Asp Val Ala
            100
                                105
                                                     110
Ile Ile Ser Thr Thr Tyr Leu Gln Gln Thr Gly Leu Ser Pro Val His
                            120
                                                 125
Asp Ser Val Phe Ile Glu Asp Lys Asn Ser Pro Tyr Val Asn Ile Val
                        135
                                             140
Val Thr Arg Glu Asp Asn Lys Asp Ala Glu Asn Val Lys Glu Phe Ile
                    150
                                        155
Gln Ser Tyr Gln Ser Pro Glu Val Ala Lys Ala Ala Glu Thr Leu Phe
                165
                                    170
Asn Gly Gly Ala Val Pro Gly Trp
            180
                                185
<210> 5982
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 5982
Thr Pro His Gly Val Thr Gly Cys Leu Pro Lys Leu Arg Pro Ser Pro
                                    10
Pro Pro Cys Gly Trp Ser Thr Gly Phe Ile Ala Val Pro Arg Thr Val
            20
                                25
Gly Arg Thr Pro Arg Gln Arg Ala Ala Pro Ala Leu Pro Arg Thr Arg
                            40
                                                 45
Ser Ile Cys Ser Ala Leu Pro Thr Ser Pro Arg Val Ala Arg Gln Ser
                        55
Ala Ser Thr Leu Arg Ile Ser Pro Glu Arg Arg Arg Val Thr
                                                             80
                                        75
<210> 5983
<211> 79
<212> PRT
<213> Enterobacter cloacae
<400> 5983
Phe Ser Ser Arg Leu Val Lys Thr Lys Leu Leu Ala Gln Lys Leu Lys
```

Asp Met Ala Leu Glu Asp Val Leu Ile Ile Thr Gly Glu Leu Asp Glu

25 Asn Leu Phe Leu Ala Ala Arg Asn Leu His Lys Val Asp Val Arg Asp 40 45 Ala Thr Gly Ile Asp Pro Val Ser Leu Ile Ala Phe Asp Lys Val Val 55 Met Thr Ala Asp Ala Val Lys Gln Val Glu Glu Met Leu Ala <210> 5984 <211> 273 <212> PRT <213> Enterobacter cloacae <400> 5984 Arg Pro Lys His Glu Ala His Tyr Ala Ala Cys Glu Arg Ser Cys Arg Ser His Pro Glu Ala His Gln Pro His Tyr Cys Gly Cys Val Arg Ser 20 25 Leu Arg Leu Trp Arg Leu Ala Met Gly Gln Lys Val His Pro Asn Gly Ile Arg Leu Gly Ile Val Lys Pro Trp Asn Ser Thr Trp Phe Ala Asn 55 Thr Lys Glu Phe Ala Asp Asn Leu Asp Ser Asp Phe Lys Val Arg Gln 70 75 Tyr Leu Thr Lys Glu Leu Ala Lys Ala Ser Val Ser Arg Ile Val Ile 85 90 Glu Arg Pro Ala Lys Ser Ile Arg Val Thr Ile His Thr Ala Arg Pro 100 105 Gly Ile Val Ile Gly Lys Lys Gly Glu Asp Val Glu Lys Leu Arg Lys 120 Val Val Ala Asp Ile Ala Gly Val Pro Ala Gln Ile Asn Ile Ala Glu 135 140 Val Arg Lys Pro Glu Leu Asp Ala Lys Leu Val Ala Asp Ser Ile Thr 150 155 Ser Gln Leu Glu Arg Arg Val Met Phe Arg Arg Ala Met Lys Arg Ala 170 Val Gln Asn Ala Met Arg Leu Gly Ala Lys Gly Ile Lys Val Glu Val 185 Ser Gly Arg Leu Gly Gly Ala Glu Ile Ala Arg Thr Glu Trp Tyr Arg 200 Glu Gly Arg Val Pro Leu His Thr Leu Arg Ala Asp Ile Asp Tyr Asn 215 220 Thr Ser Glu Ala His Thr Thr Tyr Gly Val Ile Gly Val Lys Val Trp 230 235 Ile Phe Lys Gly Glu Ile Leu Gly Gly Met Ala Ala Val Glu Gln Pro 245 250 Glu Lys Pro Ala Ala Gln Pro Lys Lys Gln Gln Arg Lys Gly Arg Lys 265

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<210> 5985
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<400> 5985

Gly Ala Ser Leu Met Leu Gln Pro Lys Arg Thr Lys Phe Arg Lys Val 1 5 10 15 His Lys Gly Arg Asn Arg Gly Leu Ala Gln Gly Thr Asp Val Ser Phe

<sup>&</sup>lt;211> 141

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<212> PRT

Gly Thr Phe Gly Leu Lys Ala Val Gly Arg Gly Arg Leu Thr Ala Arg Gln Ile Glu Ala Ala Arg Arg Ala Met Thr Arg Ala Val Lys Arg Gln 55 Gly Lys Ile Trp Ile Arg Val Phe Pro Asp Lys Pro Ile Thr Glu Lys 70 75 Pro Leu Glu Val Arg Met Gly Lys Gly Lys Gly Asn Val Glu Tyr Trp 90 8.5 Val Ala Leu Ile Gln Pro Gly Lys Val Leu Tyr Glu Met Asp Gly Val 100 105 Pro Glu Glu Leu Ala Arg Glu Ala Phe Gly Leu Ala Ala Ala Lys Leu 120 Pro Ile Lys Thr Thr Phe Val Thr Lys Thr Val Met 135 <210> 5986 <211> 281 <212> PRT <213> Enterobacter cloacae <400> 5986 Val Ser Arg Arg Ser Asn Thr Met Ala Val Lys Cys Lys Pro Thr Ser Pro Gly Arg Arg His Val Val Lys Val Val Asn Pro Glu Leu His 25 Lys Gly Lys Pro Phe Ala Pro Leu Leu Glu Lys Asn Ser Lys Ser Gly 35 40 Gly Arg Asn Asn Asn Gly Arg Ile Thr Thr Arg His Ile Gly Gly Gly 55 His Lys Gln Ala Tyr Arg Ile Val Asp Phe Lys Arg Asn Lys Asp Gly 75 Ile Pro Ala Val Val Glu Arg Leu Glu Tyr Asp Pro Asn Arg Ser Ala 90 85 Asn Ile Ala Leu Val Leu Tyr Lys Asp Gly Glu Arg Arg Tyr Ile Leu 105 Ala Pro Lys Gly Leu Lys Ala Gly Asp Gln Ile Gln Ser Gly Val Asp 115 120 125 Ala Ile Lys Ala Gly Asn Thr Leu Pro Met Arg Asn Ile Pro Val 135 140 Gly Ser Thr Val His Asn Val Glu Met Lys Pro Gly Lys Gly Gln 155 150 Leu Ala Arg Ser Ala Gly Thr Tyr Val Gln Ile Val Ala Arg Asp Gly 170 165 Ala Tyr Val Thr Leu Arg Leu Arg Ser Gly Glu Met Arg Lys Val Glu 185 180 190 Ala Asp Cys Arg Ala Thr Leu Gly Glu Val Gly Asn Ala Glu His Met 195 200 Leu Arg Val Leu Gly Lys Ala Gly Ala Ala Arg Trp Arg Gly Val Arg 215 220 Pro Thr Val Arg Gly Thr Ala Met Asn Pro Val Asp His Pro His Gly 230 235 Gly Gly Glu Gly Arg Asn Phe Gly Lys His Pro Val Thr Pro Trp Gly 250 Val Gln Thr Lys Gly Lys Lys Thr Arg Ser Asn Lys Arg Thr Asp Lys 265 Phe Ile Val Arg Arg Arg Ser Lys <210> 5987 <211> 114

## <213> Enterobacter cloacae

<210> 5988

<211> 90

<212> PRT

<213> Enterobacter cloacae

<400> 5988

<210> 5989

<211> 105

<212> PRT

<213> Enterobacter cloacae

<400> 5989

Leu Asp Phe Val Gly Gly Ala Glu

```
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 5990
Ala Met Pro Arg Ser Leu Lys Lys Gly Pro Phe Ile Asp Leu His Leu
Leu Lys Lys Val Glu Lys Ala Val Glu Ser Gly Asp Lys Lys Pro Leu
Arg Thr Trp Ser Arg Arg Ser Thr Ile Phe Pro Asn Met Ile Gly Leu
                            40
Thr Ile Ala Val His Asn Gly Arg Gln His Val Pro Val Phe Val Thr
                        55
Asp Glu Met Val Gly His Lys Leu Gly Glu Phe Ala Pro Thr Arg Thr
                    70
Tyr Arg Gly His Ala Ala Asp Lys Lys Ala Lys Lys
<210> 5991
<211> 68
<212> PRT
<213> Enterobacter cloacae
<400> 5991
Asp Gly Asp Val Met Lys Ala Lys Glu Leu Arg Glu Lys Ser Val Glu
Glu Leu Asn Ala Glu Leu Leu Asn Leu Leu Arg Glu Gln Phe Asn Leu
            20
Arg Met Gln Ala Ala Ser Gly Gln Leu Gln Gln Thr His Leu Leu Lys
Gln Val Arg Arg Asn Val Ala Arg Val Lys Thr Leu Leu Thr Gln Lys
                        55
Ala Gly Ala
<210> 5992
<211> 436
<212> PRT
<213> Enterobacter cloacae
<400> 5992
Thr Leu Leu Pro Thr Arg Arg Leu Lys Leu Tyr Gly Glu Ser Phe
                                    10
Ser Asp Ala His Leu Asn Val Leu Leu Thr Lys Leu Glu Lys Ala Ala
                                25
Thr Asn Ile Thr Glu Lys Arg Lys Ser Gly Trp Asp Glu Lys Asp Val
                            40
Val Leu Ile Thr Tyr Ala Asp Gln Phe Ser Thr Lys Gly Glu Gln Ala
                        55
Leu Pro Val Phe Thr Arg Phe Tyr Asn Glu Trp Leu Ser Arg Thr Phe
                    70
                                        7.5
Ser His Val His Leu Leu Pro Phe Tyr Pro Trp Ser Ser Asp Asp Gly
                                    90
                                                         95
                85
Phe Ser Val Ile Asp Tyr His Glu Val Ala Pro Glu Thr Gly Thr Trp
                                105
                                                     110
Arg Asp Val Ala Glu Leu Lys His Ser Ala Ser Leu Met Phe Asp Phe
                            120
Val Cys Asn His Met Ser Ala Lys Ser Glu Trp Phe Ala Asn Tyr Leu
                        135
```

Ala Gln Lys Pro Gly Tyr Glu Asp Phe Phe Ile Ser Val Asp Pro Glu

```
Thr Asp Leu Ser Ala Val Thr Arg Pro Arg Ala Leu Pro Leu Leu Thr
                                    170
                165
Pro Phe Thr Leu His Asp Gly Ser Val Arg His Leu Trp Thr Thr Phe
            180
                                185
Ser Asp Asp Gln Ile Asp Leu Asn Phe Ala Ser Pro Gln Val Leu Ile
        195
                            200
Ala Met Val Asp Val Leu Leu His Tyr Leu Met Glu Gly Ala Arg Tyr
                        215
                                            220
Ile Arg Leu Asp Ala Val Gly Phe Met Trp Lys Ile Pro Gly Thr Thr
                    230
                                        235
Cys Ile His Leu Glu Gln Thr His Cys Leu Ile Gln Leu Phe Arg Ala
                245
                                    250
Ile Thr Asp Ala Val Ala Pro Gly Thr Val Ile Ile Thr Glu Thr Asn
                                265
Val Pro His Lys Asp Asn Val Ser Tyr Phe Gly Asp Gly Glu Asn Glu
                            280
Ala His Met Val Tyr Gln Phe Ser Leu Pro Pro Leu Val Leu His Ala
                        295
Val His Arg Gln Asp Val Lys Thr Leu Cys Gln Trp Ala Gly Ser Leu
                    310
                                        315
Ala Leu Pro Ser Thr His Thr Thr Trp Phe Asn Phe Leu Ala Ser His
                325
                                    330
Asp Gly Ile Gly Leu Asn Pro Leu Arg Gly Ile Leu Pro Glu Ser Glu
                                345
Ile Leu Ser Leu Val Glu Lys Leu Gln His Glu Cys Ala Leu Val Asn
                            360
Trp Lys Asn Asn Pro Asp Gly Thr Arg Ser Pro Tyr Glu Ile Asn Val
                        375
                                            380
Thr Tyr Leu Asp Ala Leu Ser Leu Arg Asp Ser Ser Tyr Asp Glu Arg
                                        395
                    390
Ile Ala Arg Phe Ile Leu Ser His Ala Val Leu Leu Ser Phe Pro Gly
                                    410
               405
Val Pro Ala Val Tyr Ile Gln Ser Ile Leu Gly Ser Arg Asn Asp Tyr
                                425
Glu Gly Val
       435
<210> 5993
<211> 125
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(32)
<400> 5993
Arg Leu Gly Tyr Asn Arg Ala Ile Asn Arg Lys Lys Tyr Thr Ala Arg
                                   10
His Val Asp Leu Glu Leu Asn Asn Lys Lys Ser Ile Arg Tyr Gln Xaa
                                25
Tyr Ser Arg Leu Ser Glu Phe Ile Ala Ile Arg Arg Gly Glu Ser Ala
Phe His Pro Asp Ser Gln Ala Ile Phe Asp Ala Ile Gly Glu His Ile
Leu Lys Ile Val Arg Val Ala Glu Asn Gly Glu Arg Met Thr Ala Leu
                                        75
Phe Asn Phe Ser Asn Lys Met Gln Thr Ile Tyr Gly Gln Thr Leu Phe
                                    90
               85
Gly Arg Glu Leu Leu Ser Gly His Asp Ile Ser Gly Thr Glu Leu Asn
```

105

Leu Asn Pro Trp Gln Val Met Trp Ile Lys Glu Asn 120 <210> 5994 <211> 442 <212> PRT <213> Enterobacter cloacae <400> 5994 Cys Gly Leu Lys Lys Thr Lys Lys Asp Pro Lys Met Lys Met Pro Lys 10 Ile Val Leu Leu Ser Ala Leu Val Ser Cys Ala Leu Leu Ser Gly Cys 25 Lys Asp Asp Lys Ala Ser Gln Val Thr Ile Glu Phe Met His Ser Ser 35 40 Val Glu Gln Glu Arg Gln Ala Val Ile Thr Lys Leu Ile Glu Lys Phe 55 Glu Lys Glu Asn Pro Thr Ile Thr Val Lys Gln Val Pro Val Glu Glu 70 75 Asp Ala Tyr Asn Thr Lys Val Ile Thr Leu Ala Arg Thr Gly Ala Leu 90 Pro Glu Val Ile Glu Val Ser His Asp Tyr Ala Lys Val Met Asp Lys 105 Glu Gln Leu Leu Asp Arg Asp Ala Ile Gly Asn Ala Ile Lys Ala Val 120 Gly Glu Asp Thr Phe Tyr Asp Gly Ile Leu Arg Val Val Arg Thr Glu 135 140 Asp Gly Lys Ala Trp Thr Gly Val Pro Val Ser Ala Trp Leu Ser Gly 150 155 Val Trp Tyr His Lys Asp Ala Leu Ala Ala Ala Gly Ile Glu Glu Pro 165 170 His Asn Trp Glu Gln Leu Leu Lys Ala Ser Gln Ala Leu Asn Asp Pro 185 Ala Lys Lys His Tyr Gly Ile Ala Leu Pro Thr Ala Glu Ser Val Met 195 200 Thr Glu Gln Ala Phe Ser Gln Phe Ala Leu Ser Gly Gly Ala Asn Val 215 220 Phe Asp Ala Asn Gly Asn Val Lys Ile Asp Thr Pro Glu Met Ser Lys 230 235 Ala Leu Ala Phe Tyr Arg Ala Leu Ala Ala Asn Thr Met Pro Gly Ser 245 250 Asn Asp Val Met Glu Ile Lys Asp Ala Phe Met Asn Gly Cys Ala Pro 265 260 270 Met Ala Val Tyr Ser Thr Tyr Ile Leu Pro Ala Val Tyr Lys Asp Gly 280 285 Asn Pro Ala Asn Leu Gly Phe Val Val Pro Thr Glu Lys Ser Ser Ala 295 300 Val Tyr Gly Met Ile Thr Ser Leu Thr Ile Thr Thr Gly Gln Thr Glu 315 310 Glu Glu Thr Gln Ala Ala Glu Lys Phe Val Thr Trp Met Glu Gln Ala 325 330 Gln Asn Ala Ser Asp Trp Val Met Met Ser Pro Gly Ala Ala Leu Pro 345 Leu Asn Lys Leu Val Val Gly Thr Glu Ser Trp Lys Asn Asn Asp Val 360 Ile Lys Ala Phe Gly Gln Leu Pro Tyr Glu Leu Ile Ala Gln Phe Pro 375 Asn Val Gln Val Phe Gly Ala Val Gly Asp Lys Asn Phe Thr Arg Met 390 395 Gly Asp Val Thr Gly Ser Gly Ile Ile Ser Ser Met Val His Asn Val

410

<220>

<221>UNSURE

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Thr Val Gly Gln Lys Asp Leu Asn Ala Thr Leu Ser Asn Ser Gln Lys
            420
                                425
Lys Leu Thr Asp Leu Ile Ser Gln Arg
        435
<210> 5995
<211> 301
<212> PRT
<213> Enterobacter cloacae
<400> 5995
Glu Arg Phe Ala Lys Gly Ile Met Lys Thr Leu Phe Ser Gly Arg Ser
                                    10
                                                         15
Asp Met Pro Phe Ala Met Leu Leu Leu Ala Pro Ser Leu Ile Leu Leu
            20
Gly Gly Leu Val Ala Trp Pro Met Ile Ser Asn Ile Glu Ile Ser Phe
Leu Arg Leu Pro Leu Asn Pro Arg Ile Asp Ala Val Phe Val Gly Leu
                        55
Asp Asn Tyr Ile Arg Ile Leu Gly Asp Ala Ala Phe Trp His Ser Leu
                                        75
Trp Met Thr Phe Trp Tyr Thr Ala Leu Val Val Leu Gly Ser Thr Gly
                85
                                    90
Leu Gly Leu Ala Val Ala Ile Phe Phe Asn Arg Glu Phe Arg Met Arg
                                105
                                                     110
Lys Thr Ala Arg Ser Leu Val Ile Leu Ser Tyr Val Thr Pro Ser Ile
       115
                            120
Ser Leu Val Phe Ala Trp Lys Tyr Met Phe Asn Asn Gly Tyr Gly Ile
                        135
                                            140
Val Asn Tyr Leu Gly Val Asp Leu Leu His Leu Tyr Asp Gln Ala Pro
                    150
                                        155
Leu Trp Phe Asp Asn Pro Gly Ser Ser Phe Val Leu Val Val Leu Phe
                                    170
                165
Ala Ile Trp Arg Tyr Phe Pro Tyr Ala Phe Ile Ser Phe Leu Ala Ile
            180
                                185
                                                    190
Leu Gln Thr Ile Asp Lys Ser Leu Tyr Glu Ala Ala Glu Met Asp Gly
                            200
                                                205
Ala Asn Ala Trp Gln Arg Phe Arg Ile Val Thr Leu Pro Ala Ile Met
                        215
                                            220
Pro Val Leu Ala Thr Val Val Thr Leu Arg Thr Ile Trp Met Phe Tyr
                                        235
                    230
Met Phe Ala Asp Val Tyr Leu Leu Thr Thr Lys Val Asp Ile Leu Gly
                245
                                    250
Val Tyr Leu Tyr Lys Thr Ala Phe Ala Phe Asn Asp Leu Gly Lys Ala
            260
                                265
                                                    270
Ala Ala Ile Ser Val Val Leu Phe Val Ile Ile Phe Ala Val Ile Leu
                            280
Leu Thr Arg Lys Arg Val Asn Leu Asn Gly Asn Lys
                        295
<210> 5996
<211> 215
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(175)
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<222>(176)
<220>
<221>UNSURE
<222>(182)
<220>
<221>UNSURE
<222>(203)
<400> 5996
Thr Ser Met Ala Thr Asn Lys Arg Val Leu Gly Arg Ile Gly Phe Tyr
               5
                                    10
Leu Gly Leu Ala Val Phe Leu Ile Ile Thr Leu Phe Pro Phe Phe Val
                                25
Met Leu Met Thr Ser Phe Lys Ser Ala Lys Glu Ala Ile Ser Leu His
                            40
Pro Thr Ile Leu Pro Gln Glu Trp Thr Leu Gln His Tyr Ile Asp Ile
                        55
Phe Asn Pro Leu Ile Phe Pro Phe Val Asp Tyr Phe Arg Asn Ser Met
                    70
                                        75
Val Val Ser Leu Thr Ser Ser Val Ile Ala Val Phe Leu Gly Thr Leu
                                    90
Gly Ala Tyr Ala Leu Ser Lys Leu Arg Phe Lys Gly Arg Thr Thr Ile
                               105
Asn Ala Ser Phe Tyr Thr Val Tyr Met Phe Ser Gly Ile Leu Leu Val
                            120
Val Pro Leu Phe Lys Ile Ile Thr Ala Leu Gly Ile Tyr Asp Thr Glu
Leu Ala Leu Ile Ile Thr Met Val Thr Gln Thr Leu Pro Thr Ala Val
                    150
Phe Met Leu Arg Asn Tyr Phe Asp Thr Ile Pro Asp Glu Ile Xaa Xaa
               165
                                    170
Ala Pro Met Lys Asp Xaa Leu Lys Arg Leu Gln Ile Ile Phe Arg Ile
                                185
Thr Leu Pro Leu Gly Asn Ser Gly Leu Val Xaa Val Phe Val His Cys
                            200
Phe Met Val Gly Val Glu
    210
                        215
<210> 5997
<211> 153
<212> PRT
<213> Enterobacter cloacae
<400> 5997
Ser Phe Glu Ala Leu Lys Glu Tyr Tyr Pro Gln Ala Lys Lys Glu Asp
                                    10
Trp Arg Leu Trp Gln Ala Gly Gln Arg Val Gln Ile Ile Lys Arg Asp
            20
Pro Lys Glu Gly Gly Val Leu Arg Met Ser Thr Glu Val Val Ser Asp
Lys Asp Gly Thr Ile Ala Val Leu Leu Gly Ala Ser Pro Gly Ala Ser
Thr Ala Ala Pro Ile Met Leu His Leu Met Glu Lys Val Phe Lys Asp
Lys Val Ser Ser Pro Glu Trp Gln Ala Lys Leu Lys Thr Ile Ile Pro
                                    90
                85
Ser Tyr Gly Thr Lys Leu Asn Gly Asn Val Glu Ala Thr Glu Gln Glu
            100
                                105
Leu Glu Tyr Thr Ser Arg Val Leu Gln Leu Gln Tyr Val Lys Pro Gln
```

```
120
Ala Ala Asp Ala Ala Pro Lys Ala Glu Leu Lys Pro Gln Ala Glu Ser
                       135
                                            140
Lys Pro Val Ala Asp Ile Ala Leu
                    150
<210> 5998
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 5998
Cys Thr Ala Phe Val Phe Phe Tyr Trp Cys Leu Met Leu Trp Trp Ser
                                    10
Arg Cys Gly Asp Arg Val Ile Leu Arg Val Asn Tyr Cys Tyr Leu Ser
                                25
Val Lys Gly Gly Asp Met Val Arg Glu Lys Leu Lys Thr Pro Glu Gly
                            40
Arg Lys Phe Leu Leu Ala Leu Leu Val Val Phe Met Ile Ala Ala Ala
                        5.5
                                            60
Cys Val Gly Arg Ala Thr Ile Val Gly Val Ile Glu Gln Tyr Asn Ile
                    70
                                        75
Pro Leu Ser Ala Trp Thr Thr Ser Met Phe Val Leu Gln Ser Ala Met
                                    90
               85
Ile Phe Val Tyr Ser Leu Val Phe Thr Val Leu Leu Ala Ile Pro Leu
           100
                               105
Gly Ile Phe Phe Leu Gly Gly Arg Glu Lys His
                            120
<210> 5999
<211> 137
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(137)
<400> 5999
Ile Pro Pro Gly Leu Lys Gly Glu Phe Ile Met Ser Leu Glu Ile Asn
                                   10
Gln Ile Ala Leu His Gln Leu Ile Lys Arg Asp Glu Gln Thr Leu Glu
                                25
Val Val Leu Arg Asp Ser Leu Leu Glu Pro Thr Pro Thr Val Val Glu
                            40
Met Met Ala Glu Leu His Arg Val Tyr Ser Ala Lys Asn Lys Ala Tyr
Gly Leu Phe Ser Glu Glu Ser Glu Leu Ala Asp Ser Leu Arg Leu Gln
Arg Gln Gly Glu Glu Asp Phe Leu Ala Phe Ser Arg Ala Ala Thr Gly
                                    90
Arg Leu Arg Asp Glu Leu Ala Lys Tyr Pro Phe Ala Asp Gly Gly Ile
                               105
Val Leu Phe Cys His Tyr Arg Cys Pro Ala Val Phe Pro Gln Glu
                           120
Leu Ala Ile Arg Glu Val Asn Arg Xaa
   130
                        135
<210> 6000
<211> 625
<212> PRT
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## <213> Enterobacter cloacae

<400> 6000 Ser Ile Pro Ala Leu Leu Arg Leu Ser Val Arg Arg Ser Pro Asn Leu 10 Ser Pro Arg Leu Cys Ser Pro Pro Leu Ala Thr Thr Arg His Thr Lys 25 Gly Asn Glu Gln Gln Phe Met Val Thr Asn Arg Gln Arg Tyr Arg Glu 40 Lys Val Ser Gln Met Val Ser Trp Gly His Trp Phe Ala Leu Phe Asn 55 Ile Leu Leu Ala Met Val Leu Gly Cys Arg Tyr Leu Phe Val Ala Asp 70 75 Trp Pro Thr Thr Leu Thr Gly Arg Val Tyr Ser Trp Met Ser Leu Val 85 90 Gly His Phe Ser Phe Leu Val Phe Ala Thr Tyr Leu Leu Ile Leu Phe 100 105 Pro Leu Thr Phe Ile Val Met Ser Gln Arg Leu Met Arg Phe Leu Ser 120 125 Ala Ile Leu Ala Thr Ala Gly Met Thr Leu Leu Leu Ile Asp Ser Glu 135 140 Val Phe Thr Arg Phe His Leu His Leu Asn Pro Val Val Trp Glu Leu 150 Val Ile Asn Pro Asp Gln Asn Glu Thr Ala Arg Asp Trp Gln Leu Met 170 Phe Ile Ser Val Pro Ile Ile Leu Leu Ile Glu Met Leu Phe Ala Thr 185 Trp Ser Trp Gln Lys Leu Arg Ser Leu Thr Arg Arg Arg His Tyr Ala 200 Lys Pro Val Ala Ala Leu Phe Phe Ala Ser Phe Ile Gly Ser His Leu 215 220 Met Tyr Ile Trp Ala Asp Ala Asn Phe Tyr Arg Pro Ile Thr Met Gln 230 235 Arg Ala Asn Leu Pro Leu Ser Tyr Pro Met Thr Ala Arg Arg Phe Leu 245 250 Glu Lys His Gly Leu Leu Asp Ala Gln Glu Tyr Gln Arg Arg Leu Val 265 Glu Gln Gly Asn Pro Glu Ala Val Ser Val Gln Tyr Pro Leu Ser Asp 280 Leu Lys Tyr Arg Asp Met Gly Arg Gly Gln Asn Val Leu Leu Ile Thr 295 300 Val Asp Gly Leu Asn Tyr Ser Arg Tyr Glu Lys Gln Met Pro Ala Leu 310 315 Ala Glu Phe Ala Glu Asn Asn Ile Val Phe Thr Gln His Met Ser Ser 330 Gly Asn Ser Thr Asp Ala Gly Ile Phe Gly Leu Phe Tyr Gly Ile Ser 345 Pro Ser Tyr Met Asp Gly Val Leu Ser Ala Arg Ile Pro Ala Ala Leu 355 360 365 Ile Thr Gly Leu Asn Gln Gln Gly Tyr Gln Leu Gly Leu Phe Ala Ser 375 380 Asp Gly Phe Asn Ser Ser Leu Tyr Arg Gln Ala Leu Leu Ser Asp Phe 390 395 Ser Leu Pro Ala Ala Gln Ser Gln Ser Asp Asp Arg Thr Ala Asp Gln 410 Trp Ile Asp Trp Leu Lys Arg Tyr Ala Gln Glu Asp Asn Arg Trp Phe 420 425 Ser Trp Val Ala Phe Asn Gly Thr Thr Leu Asp Asp Ser Asn Gln Lys 440 Gly Phe Ala Arg Arg Tyr Ser Arg Ala Ala Gly Asp Val Asp Ala Gln 455

```
Ile Gly Arg Val Leu Thr Ala Leu Arg Asp Ala Gly Lys Leu Asp Asn
                    470
                                        475
Thr Val Val Ile Ile Thr Ala Gly His Gly Val Pro Leu Gly Asp Glu
                                    490
Ala Lys Gly Met Glu Trp Ser Arg Pro Asn Leu His Val Pro Leu Val
                                505
Ile His Trp Pro Gly Thr Pro Ala Gln Arg Ile Asn Met Leu Thr Asp
                            520
His Lys Asp Val Met Thr Thr Leu Met Gln Arg Leu Leu His Val Ser
                        535
                                            540
Thr Pro Ala Ile Glu Tyr Ser Gln Gly Gln Asp Leu Phe Ser Ala Thr
                    550
                                         555
Arg Arg His Asn Trp Val Thr Ala Ala Gly Gly Asn Thr Leu Val Val
                                    570
                565
Thr Thr Pro Thr Leu Ser Leu Val Leu Asn Ser Asn Gly Asn Tyr Gln
            580
                                585
Thr Tyr Ser Leu Glu Gly Glu Lys Leu Lys Asp Gln Lys Pro Gln Leu
                            600
                                                 605
Ser Leu Leu Leu Gln Val Leu Thr Asp Glu Lys Arg Phe Ile Ala Asn
   -610
                        615
                                             620
625
<210> 6001
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 6001
Gln Lys Gly Met Thr Val Lys Asn Ala Pro Lys Phe Ala Ile Ala Leu
                                    10
Ile Ala Ala Cys Ala Ser Ser Ser Ala Phe Ala Ser Glu Thr Gln
                                25
Lys Glu Gln Pro Leu Glu Lys Val Ala Pro Tyr Pro Gln Ala Asp Lys
                            40
Gly Met Lys Arg Gln Val Ile Gln Leu Pro Ala Gln Gln Asp Glu Ala
Asn Phe Lys Val Glu Leu Leu Ile Gly Gln Thr Leu Glu Val Asp Cys
Asn Gln His Arg Leu Gly Gly Gln Leu Glu Ser Lys Thr Leu Glu Gly
Trp Gly Tyr Asp Tyr Tyr Val Phe Asp Lys Val Thr Ser Pro Val Ser
            100
                                105
                                                     110
Thr Met Met Ala Cys Pro Asp Gly Lys Lys Glu Lys Lys Phe Ile Thr
                            120
                                                 125
        115
Ala Tyr Leu Gly Asp Asn Ser Leu Leu Arg Tyr Asn Ser Lys Leu Pro
                        135
                                            140
   130
Ile Val Val Tyr Thr Pro Glu Asn Val Asp Val Lys Tyr Arg Val Trp
                    150
                                        155
Lys Ala Asp Glu Thr Val Gly Gln Ala Val Val Arg
                165
<210> 6002
<211> 77
<212> PRT
<213> Enterobacter cloacae
<400> 6002
Phe Met Pro Gln His Ser Arg Tyr Ser Asp Glu His Val Glu Gln Leu
```

Leu Ser Glu Leu Val Asn Val Leu Glu Lys His Lys Thr Pro Thr Asp

20 25 Leu Ser Leu Met Val Leu Gly Asn Met Val Thr Asn Leu Ile Asn Thr 40 Ser Val Ala Pro Ala Gln Arg Gln Ala Ile Ala Lys Ser Phe Ala Gln 55 60 Ala Leu Gln Ser Ser Val Ser Asp Asp Gln Ala His 70 <210> 6003 <211> 486 <212> PRT <213> Enterobacter cloacae <400> 6003 Ala Lys Thr Asp Pro Tyr Arg Ser Arg Cys Arg Ile Cys Pro Gly Asp 10 Gln Arg Arg Val Arg Phe Lys Ile Ser Leu Thr Thr Arg Leu Ser Leu Ile Phe Ser Ala Val Met Leu Thr Val Trp Trp Leu Ser Ser Phe Ile Leu Ile Ser Thr Leu Asn Gly Tyr Phe Asp Asn Gln Asp Arg Asp Phe 55 Leu Thr Gly Lys Leu Gln Leu Thr Glu Glu Phe Leu Lys Thr Glu Thr Phe Arg Asn Lys Thr Asp Ile Lys Ser Leu Ser Glu Lys Ile Asn Asp 90 Ala Met Val Gly His Asn Gly Leu Phe Ile Ser Ile Lys Asn Met Glu 100 105 Asn Glu Lys Ile Val Glu Leu Tyr Ala Lys Asn Ser Val Val Pro Ala 120 Val Leu Leu Asn Lys Ser Gly Asp Ile Leu Asp Tyr Met Ile Gln Thr 135 Glu Glu Asn Asn Thr Val Tyr Arg Ser Ile Ser Arg Arg Val Ala Val 155 Thr Pro Glu Gln Gly Lys Ser Lys His Val Ile Ile Thr Val Ala Thr 170 Asp Thr Gly Tyr His Thr Leu Phe Met Asp Lys Leu Ser Thr Trp Leu 180 185 Phe Trp Phe Asn Ile Gly Leu Val Phe Ile Ser Val Phe Leu Gly Trp 200 Leu Thr Thr Arg Ile Gly Leu Lys Pro Leu Arg Glu Met Thr Ser Leu 215 220 Ala Ser Ser Met Thr Val His Ser Leu Asp Gln Arg Leu Asn Pro Asp 230 235 Leu Ala Pro Pro Glu Ile Ser Glu Thr Met Gln Glu Phe Asn Asn Met 245 250 Phe Asp Arg Leu Glu Gly Ala Phe Arg Lys Leu Ser Asp Phe Ser Ser 260 265 270 Asp Ile Ala His Glu Leu Arg Thr Pro Val Ser Asn Leu Met Met Gln 280 285 Thr Gln Phe Ala Leu Ala Lys Glu Arg Asp Val Ser His Tyr Arg Glu 295 300 Ile Leu Phe Ala Asn Leu Glu Glu Leu Lys Arg Leu Ser Arg Met Thr 310 315 Ser Asp Met Leu Phe Leu Ala Arg Ser Glu His Gly Leu Leu Arg Leu 330 Asp Lys His Asp Val Asp Leu Ala Ala Glu Leu Asn Glu Leu Arg Glu 345 Leu Phe Glu Pro Leu Ala Asp Glu Thr Gly Lys Thr Ile Thr Val Glu 360

Gly Glu Gly Val Val Ala Gly Asp Ser Asp Met Leu Arg Arg Ala Phe

375 380 Ser Asn Leu Leu Ser Asn Ala Ile Lys Tyr Ser Pro Asp Asn Thr Cys 390 395 Thr Ala Ile His Leu Glu Arg Asp Arg Asp Cys Val Asn Val Met Ile 405 410 Thr Asn Thr Met Ser Gly Gln Val Pro Ala Asn Leu Glu Arg Leu Phe 425 430 Asp Arg Phe Tyr Arg Ala Asp Ser Ser Arg Phe Tyr Asn Thr Glu Gly 440 Ala Gly Leu Gly Leu Ser Ile Thr Arg Ser Ile Ile His Ala His Gly Gly Glu Leu Ser Ala Glu Gln Gln Gly Arg Glu Ile Val Phe Lys Val 470 Arg Leu Leu Met Asp <210> 6004 <211> 244 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(99) <400> 6004 Arg Lys Arg Gly Ser Gly Thr Pro Glu Val Lys Thr Ile His Val Ile 10 Glu Met Val Ile Glu Glu Thr Asp Val Gly Ile Ser Trp Ile Val Arg 25 Leu Cys Ala Leu Phe Thr Thr Leu Gly Ala Leu Phe Leu Tyr Thr Asn 40 Lys Arg Val Leu Ser Cys Leu Leu Met Thr Met Ser Gly Gly Val Ala 55 Leu Ala Thr Leu Ala Trp Gly Gly His Ala Val Met His Asp Gly Leu 70 7.5 His Tyr Tyr Leu His Leu Leu Ser Asp Leu Thr His Leu Gly Ala Ala 85 90 Gly Ala Xaa Asp Arg Gly Phe Ala Leu Val Ala Phe Ala Ile Leu Leu 105 Met Arg Arg Asn Glu His Asn Ala Gln Ser Val Ile Val Ile Ser Asp 120 Ser Leu Ala Lys Phe Ala Thr Ala Gly Thr Val Ile Val Val Ala Leu 135 140 Ile Leu Thr Ala Leu Val Asn Tyr Leu Tyr Ile Ala Glu Gly Asn Leu 150 155 Thr Pro Leu Phe Asn Ser Ser Trp Gly Arg Ile Leu Leu Ala Lys Thr 170 165 Ala Leu Phe Val Leu Met Leu Leu Leu Ala Ala Asn Arg Phe His 180 185 Leu Gly Pro Arg Leu Glu Val Met Val Arg Glu Gly Asn Tyr Asp Arg 200 Ser Val Ala Leu Met Arg Asn Ser Ile Leu Thr Glu Phe Val Val Ala 215 220 Ile Ile Ile Leu Gly Ala Val Ala Trp Leu Gly Met Leu Ala Pro Ser

Gln Val Ser

230

```
<212> PRT
<213> Enterobacter cloacae
<400> 6005
Asp Phe Tyr Phe His Ile Ser
```

Asp Phe Tyr Phe His Ile Ser Glu Leu Thr Met Gln Arg Ile Leu Ile Val Glu Asp Glu Gln Lys Thr Gly Arg Tyr Leu Gln Gln Gly Leu Val 25 Glu Glu Gly Tyr Gln Ala Asp Leu Phe Asn Asn Gly Arg Asp Gly Leu Gly Ala Ala Ser Lys Gly Gln Tyr Asp Leu Ile Ile Leu Asp Val Met 55 Leu Pro Phe Leu Asp Gly Trp Gln Ile Ile Ser Ala Leu Arg Glu Ser 70 75 Gly His Glu Glu Pro Val Leu Phe Leu Thr Ala Lys Asp Asn Val Arg 90 Asp Lys Val Lys Gly Leu Glu Leu Gly Ala Asp Asp Tyr Leu Ile Lys 100 105 Pro Phe Asp Phe Thr Glu Leu Val Ala Arg Val Arg Thr Leu Leu Arg 120 Arg Ala Arg Ser Gln Ala Ala Thr Val Cys Thr Ile Ala Asp Met Thr 135 Val Asp Met Val Arg Arg Thr Val Ile Arg Ser Gly Lys Lys Ile His 150 Leu Thr Gly Lys Glu Tyr Val Leu Leu Glu Leu Leu Gln Arg Thr 165 170 Gly Glu Val Leu Pro Arg Ser Leu Ile Ser Ser Leu Val Trp Asn Met 185 Asn Phe Asp Ser Asp Thr Asn Val Ile Asp Val Ala Val Arg Arg Leu 200 Arg Ser Lys Ile Asp Asp Phe Glu Pro Lys Leu Ile His Thr Val 215 Arg Gly Ala Gly Tyr Val Leu Glu Ile Arg Glu Glu

<210> 6006 <211> 138 <212> PRT <213> Enterobacter cloacae

230

<400> 6006

Trp Thr Leu Ser Met Ser Asn Thr Leu Gln Pro Arg Ala Arg Ala 10 Ser Tyr Ser Met Asp Phe Lys Leu Ala Leu Val Glu Lys Ser Tyr Gln 25 Pro Gly Ala Cys Val Ala Arg Leu Ala Arg Asp Asn Gly Ile Asn Asp 40 Asn Leu Leu Phe Thr Trp Arg Gln Arg Tyr Arg His Leu Leu Pro Asp 55 Glu Ile Gln Arg Ser Ile Arg Glu Gln Asp Ser Val Ile Pro Val Val 70 75 Leu Pro Asp Met Ala Leu Ser His His Ala Glu Pro His Tyr Glu Pro 90 Ala Ala Pro Ala Cys Arg Glu Ala Met Thr Cys Glu Val Thr Val Gly 105 Gly Ala Ser Leu Arg Leu Ser Gly Asp Leu Ser Pro Ala Leu Leu Lys 120 Thr Leu Ile Arg Glu Thr Leu Glu Lys Pro

<210> 6007

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<211> 410
<212> PRT
<213> Enterobacter cloacae
<400> 6007
Arg Arg Tyr Pro Gln Val Lys Leu Asn Ala Arg Gln Val Asp Ala Ala
Lys Pro Lys Asp Lys Pro Tyr Lys Leu Ala Asp Gly Gly Leu Tyr
Leu Leu Ile Lys Pro Asn Gly Gly Lys Tyr Trp Arg Leu Lys Tyr Arg
                            40
Val Ala Gly Lys Glu Lys Leu Leu Ala Leu Gly Val Tyr Pro Glu Val
                        55
Thr Leu Ala Asp Ala Arg Ala Lys Arg Glu Glu Ala Lys Arg Gly Ile
                    70
                                         75
Ala Gly Gly Ile Asp Pro Met Glu Ala Lys Arg Glu Glu Lys Ile Ala
                85
                                    90
Arg Glu Ile Gln Leu Asn Asn Thr Phe Lys Asp Ile Ala Leu Glu Trp
            100
                                105
His Ser Ser Lys Leu Lys Lys Trp Ser Ala Gly Tyr Ala Ser Asp Ile
        115
                            120
Leu Glu Ala Phe Asn Lys Asp Val Phe Pro Tyr Ile Gly Lys Lys Pro
                        135
                                            140
Ile Ala Glu Ile Lys Pro Leu Glu Leu Leu Asn Val Leu Arg Arg Ile
                    150
Glu Gly Arg Gly Ala Thr Glu Lys Ala Arg Lys Val Arg Gln Arg Cys
                                    170
Gly Glu Val Phe Arg Tyr Ala Ile Val Thr Gly Arg Ala Glu Tyr Asn
                                185
Pro Ala Pro Asp Leu Thr Ser Ala Met Gln Gly His Glu Ser Asn His
                            200
Phe Pro Phe Leu Thr Pro Lys Gln Leu Pro Asp Phe Phe Asn Ala Leu
                                            220
                        215
Ser Gly Tyr Ser Gly Ser Glu Leu Val Val Leu Ala Ala Arg Leu Leu
                    230
                                         235
Ile Ile Thr Gly Leu Arg Pro Gly Glu Leu Arg Gly Ala Phe Trp Asp
                                    250
Glu Ile Asn Ile Ser Lys Ala Val Trp Glu Ile Pro Ala Ser Arg Met
                                265
Lys Met Arg Arg Pro His Val Val Pro Leu Ser Arg Gln Ala Leu Thr
                            280
Leu Ile Gly Gln Ile Gln Glu Leu Thr Gly Asn Tyr Pro Leu Val Phe
                        295
                                            300
Pro Gly Arg Asn Asp Pro Arg Lys Thr Met Ser Glu Ala Ser Ile Asn
                    310
                                        315
Gln Val Phe Lys Arg Ile Gly Tyr Asn Gly Lys Val Thr Gly His Gly
                                    330
                325
Phe Arg His Thr Met Ser Thr Ile Leu His Glu Gln Gly Tyr Asn Thr
                                345
                                                     350
Ala Trp Ile Glu Thr Gln Leu Ala His Val Asp Lys Asn Ser Ile Arg
                            360
                                                365
Gly Thr Tyr Asn His Ala Gln Tyr Leu Asp Gly Arg Arg Glu Met Leu
                        375
                                            380
Gln Trp Tyr Ala Asp Tyr Met Glu Ala Leu Glu Asn Gly Glu Asn Val
                    390
                                        395
Val His Gly Thr Phe Gly Lys Ser Ala
<210> 6008
<211> 409
<212> PRT
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## <213> Enterobacter cloacae

<400> 6008 Thr Arg Phe Gly Leu Lys Trp Arg Ser Phe Pro Cys Gly Glu Lys Asn 10 Gly Leu Met Lys Lys Leu Gly Asp Tyr Val Glu Tyr His Ser Gln Glu 20 25 Ile Leu Leu Ala Asn Glu Gln Asp Leu Leu Glu Ala Arg Arg Asn Gly 40 4.5 Leu Ser Glu Ala Met Leu Asp Arg Leu Ala Leu Thr Pro Ala Arg Leu 55 Lys Gly Ile Ala Asp Asp Val Arg Gln Val Cys Asn Leu Ala Asp Pro 70 75 Val Gly Gln Val Ile Asp Gly Gly Val Leu Asp Ser Gly Leu Arg Leu 90 Glu Arg Arg Arg Val Pro Leu Gly Val Ile Gly Val Ile Tyr Glu Ala 100 105 Arg Pro Asn Val Thr Val Asp Val Ala Ser Leu Cys Leu Lys Thr Gly 120 Asn Ala Ala Ile Leu Arg Gly Gly Lys Glu Thr Trp Arg Thr Asn Ala 135 Ala Thr Val Asn Val Ile Gln Gln Ala Leu Glu Glu Cys Gly Leu Pro 150 Ala Gly Ala Val Gln Ala Ile Glu Ser Pro Asp Arg Ala Leu Val Asn 170 Glu Met Leu Arg Met Asp Lys Tyr Ile Asp Met Leu Ile Pro Arg Gly 185 Gly Ala Gly Leu His Lys Leu Cys Arg Glu Gln Ser Thr Ile Pro Val 195 200 Ile Thr Gly Gly Ile Gly Val Cys His Ile Val Val Asp Asp Thr Ala 215 Glu Val Glu Pro Ala Leu Lys Ile Ile Val Asn Ala Lys Thr Gln Arg 230 Pro Ser Thr Cys Asn Thr Val Glu Thr Leu Leu Val His Gln Gly Ile 250 Ala Ser Thr Phe Leu Pro Ala Leu Ser Lys Gln Met Ala Glu Ser Gly 265 Val Thr Leu His Ala Asp Glu Lys Ala Phe Ala Leu Leu Lys Asp Gly 280 Pro Ala Lys Val Val Pro Val Asn Ala Glu Gln Tyr Asp Asp Glu Tyr 295 300 Leu Ser Leu Asp Leu Asn Val Lys Val Val Ala Asp Leu Asp Asp Ala 310 315 Ile Ala His Ile Arg Glu His Gly Thr Gln His Ser Asp Ala Ile Leu 325 330 Thr Arg Thr Leu Arg Asn Ala Asp Arg Phe Val Asn Glu Val Asp Ser 345 Ser Ala Val Tyr Val Asn Ala Ser Thr Arg Phe Thr Asp Gly Gln 360 365 Phe Gly Leu Gly Ala Glu Val Ala Val Ser Thr Gln Lys Leu His Ala 375 380 Arg Gly Pro Met Gly Leu Glu Ala Leu Thr Thr Tyr Lys Trp Ile Gly 390 395 Phe Gly Asp Asp Thr Ile Arg Ala 405

<sup>&</sup>lt;210> 6009

<sup>&</sup>lt;211> 133

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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<400> 6009
Arg Gln Met Ser Met Gln Asp Pro Ile Ala Asp Met Leu Thr Arg Ile
                                    10
Arg Asn Gly Gln Ala Ala Asn Lys Val Ala Val Thr Met Pro Ser Ala
                                25
Lys Leu Lys Val Ala Ile Ala Asn Val Leu Lys Glu Glu Gly Phe Ile
Glu Asp Phe Lys Val Glu Gly Asp Thr Lys Pro Glu Leu Glu Leu Thr
Leu Lys Tyr Phe Gln Gly Lys Ala Val Val Glu Ser Ile Gln Arg Val
Ser Arg Pro Gly Leu Arg Ile Tyr Lys Lys Asp Glu Leu Pro Lys
                                    90
Val Met Ala Gly Leu Gly Ile Ala Val Val Ser Thr Ser Lys Gly Val
            100
                                105
Met Thr Asp Arg Ala Ala Arg Gln Ala Gly Leu Gly Gly Glu Ile Ile
        115
                            120
Cys Tyr Val Ala
    130
<210> 6010
<211> 182
<212> PRT
<213> Enterobacter cloacae
<400> 6010
Ser Glu Glu Arg Met Ser Arg Val Ala Lys Ala Pro Val Val Ile Pro
                                    10
Ala Gly Val Asp Val Lys Ile Asp Gly Gln Val Ile Thr Ile Lys Gly
                                25
Lys Asn Gly Glu Leu Thr Arg Thr Leu Asn Lys Ala Val Glu Val Lys
                            40
His Ala Asp Asn Ala Leu Thr Phe Gly Pro Arg Asp Gly Phe Val Asp
                        55
                                            60
Gly Trp Ala Gln Ala Gly Thr Ala Arg Ala Leu Leu Asn Ser Met Val
                    70
                                        75
Val Gly Val Thr Glu Gly Phe Thr Lys Lys Leu Gln Leu Val Gly Val
                85
                                    90
Gly Tyr Arg Ala Ala Ile Lys Gly Asn Ala Val Gly Leu Ser Leu Gly
                                105
                                                    110
Phe Ser His Pro Val Glu His Pro Leu Pro Ala Gly Ile Thr Ala Glu
                            120
                                                125
Cys Pro Thr Gln Thr Glu Ile Val Leu Lys Gly Ala Asp Lys Gln Leu
                        135
                                            140
Ile Gly Gln Val Ala Ala Asp Leu Arg Ala Tyr Arg Arg Pro Glu Pro
                   150
                                       155
Tyr Lys Gly Lys Gly Val Arg Tyr Ala Asp Glu Val Val Arg Thr Lys
               165
                                    170
Glu Ala Lys Lys Lys
            180
<210> 6011
<211> 121
<212> PRT
<213> Enterobacter cloacae
<400> 6011
Gly Asn Thr Met Asp Lys Lys Ser Ala Arg Ile Arg Arg Ala Thr Arg
                                    10
Ala Arg Arg Lys Leu Lys Glu Leu Gly Ala Thr Arg Leu Val Val His
                                25
```

 Arg
 Thr
 Pro Arg
 His
 Ile
 Tyr
 Ala
 Gln
 Val
 Ile
 Ala
 Pro Asn
 Gly
 Ser

 Glu
 Val
 Leu
 Val
 Ala
 Ala
 Ser
 Thr
 Val
 Glu
 Lys
 Ala
 Ile
 Ser
 Glu
 Gln

 50
 Tyr
 Thr
 Gly
 Asn
 Lys
 Asp
 Ala
 Ala
 Ala
 Ala
 Val
 Gly
 Lys
 Ala

 65
 Tyr
 Thr
 Gly
 Asp
 Ala
 Ala
 Ala
 Ala
 Ala
 Val
 Gly
 Lys
 Ala

 Val
 Ala
 Gly
 Ala
 Leu
 Ala
 Ala
 Ala
 Leu
 Ala
 Ala
 Ala
 Leu
 Ala
 Ala
 Ala
 Leu
 Ala
 Ala
 Ala
 Ala
 Leu
 Ala
 Ala

<210> 6012 <211> 309

<212> PRT

<213> Enterobacter cloacae

<400> 6012 Gln Met Ala Lys Gln Pro Gly Leu Asp Phe Gln Ser Ala Lys Gly Gly 5 1.0 Phe Gly Glu Leu Lys Arg Arg Leu Leu Phe Val Ile Gly Ala Leu Ile 2.0 25 Val Phe Arg Ile Gly Ser Phe Ile Pro Ile Pro Gly Ile Asp Ala Ala 40 4.5 Val Leu Ala Lys Leu Leu Glu Gln Gln Arg Gly Thr Ile Ile Glu Met 55 Phe Asn Met Phe Ser Gly Gly Ala Leu Ser Arg Ala Ser Ile Phe Ala 70 75 Leu Gly Ile Met Pro Tyr Ile Ser Ala Ser Ile Ile Ile Gln Leu Leu 85 90 Thr Val Val His Pro Ala Leu Ala Glu Leu Lys Lys Glu Gly Glu Ser 100 105 110 Gly Arg Arg Lys Ile Ser Gln Tyr Thr Arg Tyr Gly Thr Leu Val Leu 120 125 Ala Ile Phe Gln Ser Ile Gly Ile Ala Thr Gly Leu Pro Asn Met Pro 135 140 Gly Met Gln Gly Leu Val Leu Asn Pro Gly Phe Ala Phe Tyr Phe Thr 150 155 Ala Val Val Ser Leu Val Thr Gly Thr Met Phe Leu Met Trp Leu Gly 170 Glu Gln Ile Thr Glu Arg Gly Ile Gly Asn Gly Ile Ser Ile Ile Ile 185 Phe Ala Gly Ile Val Ala Gly Leu Pro Pro Ala Ile Ala His Thr Ile 200 Glu Gln Ala Arg Gln Gly Asp Leu His Phe Leu Leu Leu Leu Val 215 220 Ala Val Leu Val Phe Ala Val Thr Phe Phe Val Val Phe Val Glu Arg 230 235 Gly Gln Arg Arg Ile Val Val Asn Tyr Ala Lys Arg Gln Gln Gly Arg 245 250 Arg Val Tyr Ala Ala Gln Ser Thr His Leu Pro Leu Lys Val Asn Met 270 260 265 Ala Gly Val Ile Pro Ala Ile Phe Ala Ser Ser Ile Ile Leu Phe Pro 280 285 Ala Thr Ile Ala Ser Trp Phe Gly Gly Leu His His Thr Gly Arg 290 295 300 Lys Ser Asp Ala

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<211> 170
<212> PRT
<213> Enterobacter cloacae
<400> 6013
Arg Cys Lys Met Ala His Ile Glu Lys Gln Ala Gly Glu Leu Gln Glu
                                    10
Lys Leu Ile Ala Val Asn Arg Val Ser Lys Thr Val Lys Gly Gly Arg
                                25
            20
Ile Phe Ser Phe Thr Ala Leu Thr Val Val Gly Asp Gly Asn Gly Arg
Val Gly Phe Gly Tyr Gly Lys Ala Arg Glu Val Pro Ala Ala Ile Gln
                        55
Lys Ala Met Glu Lys Ala Arg Arg Asn Met Ile Asn Val Ala Leu Asn
                    70
Asn Gly Thr Leu Gln His Pro Val Lys Gly Val His Thr Gly Ser Arg
                                    90
Val Phe Met Gln Pro Ala Ser Glu Gly Thr Gly Ile Ile Ala Gly Gly
                                105
Ala Met Arg Ala Val Leu Glu Val Ala Gly Val His Asn Val Leu Ala
                            120
Lys Ala Tyr Gly Ser Thr Asn Pro Ile Asn Val Val Arg Ala Thr Ile
                        135
Asp Gly Leu Glu Asn Met Asn Ser Pro Glu Met Val Ala Ala Lys Arg
                    150
                                        155
Gly Lys Ser Val Glu Glu Ile Leu Gly
                165
<210> 6014
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6014
Leu Thr Met Ala Lys Thr Ile Lys Ile Thr Gln Thr Arg Ser Ala Ile
                                    10
Gly Arg Leu Pro Lys His Lys Ala Thr Leu Leu Gly Leu Gly Leu Arg
                                25
Arg Ile Gly His Thr Val Glu Arg Glu Asp Thr Pro Ala Val Arg Gly
                            40
Met Val Asn Ala Val Tyr Phe Met Val Lys Val Glu Glu
<210> 6015
<211> 146
<212> PRT
<213> Enterobacter cloacae
<400> 6015
Glu Met Arg Leu Asn Thr Leu Ser Pro Ala Glu Gly Ser Lys Lys Ala
                                    10
Gly Lys Arg Leu Gly Arg Gly Ile Gly Ser Gly Leu Gly Lys Thr Gly
Gly Arg Gly His Lys Gly Gln Asn Ser Arg Ser Gly Gly Gly Val Arg
                            40
Arg Gly Phe Glu Gly Gly Gln Met Pro Leu Tyr Arg Arg Leu Pro Lys
                        55
Phe Gly Phe Thr Ser Arg Lys Ala Ala Ile Thr Ala Glu Ile Arg Leu
                                        75
Ser Asp Leu Ala Lys Val Glu Gly Gly Val Val Asp Leu Asn Thr Leu
```

```
Lys Ala Ala Asn Ile Ile Gly Ile Gln Ile Glu Phe Ala Lys Val Ile
                                105
Leu Ala Gly Glu Val Ser Thr Pro Val Thr Val Arg Gly Leu Arg Val
                            120
                                                125
Thr Lys Gly Ala Arg Ala Ala Ile Glu Ala Ala Gly Gly Lys Ile Glu
                        135
Glu
145
<210> 6016
<211> 91
<212> PRT
<213> Enterobacter cloacae
<400> 6016
Phe Gln Leu Ile Asn Lys Leu Ser Ala Ala Ala Val Ser Trp Arg Arg
                                    10
His Gly Val Ile Met Ala Gln Ile Ile Phe Asn Arg Glu Trp Val Val
Glu Ala Glu Leu Thr Ala Leu Thr Gly Leu Ser Glu Arg Gln Ile Lys
Ala Leu Arg Ser Gly Pro Trp Leu Glu Gly Ile His Phe Lys Arg Gln
                        55
Ser Met Lys Gly Gly Glu Thr Lys Arg Gly Leu Leu Trp Tyr Asn Tyr
                    70
Pro Arg Ile Asn Gln Leu Val Gln Glu Leu
<210> 6017
<211> 463
<212> PRT
<213> Enterobacter cloacae
<400> 6017
Arg Met Leu Pro Ala Arg Asn Gly Gly Gly Ile His Glu Arg Ala Ala
Arg Val Gly Ala Gln Arg Arg Thr Pro Lys Arg Met Leu Ala Trp Ile
                                25
Arg Lys Thr Met Leu Val Ser Thr Gln Trp Pro Glu Ile Lys Lys Gln
                            40
Leu Thr Lys Trp Leu Asp Thr Pro Pro Ala Lys Arg Glu Pro Val Asp
                        55
Ile Asn Thr Glu Thr Lys Thr Asp Ser Gly Ala Thr Leu Gly Gly Gly
                    70
                                        7.5
Asn Gln Thr Asp Arg Ser Pro Asp Leu Val His Asn Leu Ala Thr Leu
                                    90
                8.5
Arg Ile Glu Thr Ala Leu Gly Ile Ile Ala Ala Met Asp Phe Asp
            100
                                105
                                                    110
Ile Tyr Ser Ile Pro Val Glu Ile Met Arg Arg Ala Lys Glu Leu Glu
       115
                            120
                                                125 ·
Ser Ser Gly Gly Asp Pro Arg Phe Ser Ala Trp Trp Thr Lys Leu Arg
                       135
                                            140
Val Thr Pro Gly Ile Leu Asp Tyr Ser Arg Ala Ala Ile Ile Ala Leu
                                       155
                    150
Ile Lys Ser Ala Pro Glu Asp Leu Tyr Leu Arg Pro Val Asp Leu Arg
                                    170
Ala Tyr Ile Asn Arg Glu Leu Val Glu Ser Asp His Ala Lys Pro Asp
                               185
Pro Lys Thr Val Ala Thr Ala Cys Gly Thr Ala Thr Thr Glu Gln Asn
                            200
```

Asp Asp Gln Thr Gln Pro Ala Glu Lys Asp Lys Ala Asp Leu Pro Ala

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215
                                            220
Val Cys Pro Gly Arg Ala Ala Gln Leu Asp Lys Glu Leu Asn Glu Ala
                    230
                                      235
Phe Glu Lys Arg Pro Ser Val Glu Pro Gln Ala Ser Asp Gln Pro Gln
               245
                                    250
Ile Glu Asn Leu Gly Gly Gly Val Phe Ser Val Glu Ala Leu Ile Asn
                                265
Pro Pro Ser Ser Asn Glu Val Glu Lys Gln Glu Val Pro Pro Ala Leu
                            280
Thr Asp Arg Glu Ile Glu Ile Ala His Ala Leu Asn Asp Leu Ile Ala
                        295
                                            300
Gly Arg Thr Arg Ile Met Asp Lys Glu Glu Ala Glu Gly Val Val Thr
                    310
                                        315
Thr Thr Gly His Ser Val Ser His Val Ile Pro Leu Leu Ala Asp
                325
                                    330
Ile Ser Thr Ala Glu Phe Cys Leu Ser Pro Asp Phe Ser Asp Glu Glu
            340
                                345
Ile His Asp Val Ala Thr Thr Ile Leu Asp Ser Trp Ser Asp Asp Leu
        355
                            360
                                                365
Cys Val Arg Gln Lys Ile Ala Leu Asp Ala Ile Val Glu Tyr Arg Arg
                        375
                                            380
Pro Ala Pro Pro Lys Ala Val Leu Asp Pro Pro Phe Ile Thr Ala
                    390
                                        395
Lys Pro Lys Lys Ala Ala Glu Pro Val Pro Glu Thr His Thr Ala Ala
                405
                                    410
Pro Leu Asn Tyr Arg Gln Gln Leu Ile Leu Ala Ala Met Gln Gly Met
            420
                                425
Cys Ala Asn Pro Ser Tyr Arg Cys Asp Phe Glu Asp Leu Pro Ala Met
                            440
Ala Ile Glu Leu Ala Asp Ser Leu Ile Asn Gln Asp Gly Ile
                        455
<210> 6018
<211> 464
<212> PRT
<213> Enterobacter cloacae
<400> 6018
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Arg Tyr Thr Leu Gln Thr Pro Val Asn Glu Arg Arg Asn Gln Thr Arg Ser Pro Leu Val Gln Leu Pro Ser His Lys Ser Val Ser Ala Gly 25 Ala Val Met Ser Phe Pro Thr Gly Val Glu Ile His Asn Gly Lys Ile Arg Ile Ser Phe Thr Tyr Arg Gly Lys Arg Cys Arg Glu Val Leu Lys 55 Gly Trp Val Asn Thr Pro Ala Asn Ile Ile Lys Ala Gly Asn Leu Arg 70 75 Ala Leu Ile Val Ser Glu Ile Gln Met Gly Glu Phe Asp Tyr Ser Arg 85 90 Arg Phe Pro Glu Ser Lys Ala Val Gln Lys Phe Thr Ser Thr Arg Val 105 Ala Tyr Thr Trp Gly Asp Leu Asn Glu Leu Trp Leu Ala Ala Lys Glu 120 125 Glu Asp Val Ser Arg Asn Thr Met Thr Arg Leu Leu Ala Gln Leu Arg 135 140 Thr Ile Asn Arg Ile Val Gly Glu Asn Thr Leu Ile Val Asp Ile Thr 150 155 His Ser Asp Met Leu Arg Tyr Arg Lys Glu Leu Leu Arg Gly Glu Ser 170 Phe Tyr Ala Glu Gly Asn Lys Arg Lys Lys Thr Gly Arg Ser Val Asn

```
185
Thr Val Asn Asp Tyr Ile Ser Val Val Cys Gln Met Leu Arg Phe Ala
                            200
                                                 205
His Arg Ser Arg Phe Ile Thr Glu Lys Pro Phe Glu His Ile Thr Lys
                        215
                                            220
Leu His Lys Asp Arg Lys Lys Pro Asp Pro Leu Gln Arg Asp Glu Tyr
                    230
                                        235
Ala Thr Met Met Leu Ala Ile Asn Gly Gln Asp Arg Asn Leu Trp Gln
                245
                                    250
Phe Ala Met Asn Ala Gly Pro Arg His Gly Glu Leu Ala Ala Leu Ala
            260 -
                                265
                                                     270
Trp Asp Asp Val Asp Leu Glu Ser Gly Lys Val His Ile Gln Arg Asn
        275
                            280
Arg Thr Ala Gln Gly Asp Phe Val Pro Pro Lys Thr Lys Ala Gly Asp
                        295
Arg Val Ile Thr Leu Leu Ala Pro Ala Leu Asp Ala Leu Arg Ala Gln
                    310
                                         315
Tyr Ala Leu Thr Gly His Leu Pro Glu Thr Glu Ile Val Gln His Phe
                325
                                    330
Arg Glu Tyr Gly Lys Thr Glu Ile Gln Lys His Arg Phe Val Phe Leu
            340
                                345
Pro Gly Leu Lys Thr Lys Asn Pro Gly Arg Tyr Phe Ser Thr Gln Ser
                            360
                                                 365
Ile Ser Asp Arg Trp Asp Val Cys Val Glu Lys Ala Gly Ile Arg Arg
                        375
                                            380
Arg Ala Pro Tyr Gln Ser Arg His Thr Phe Ala Cys Trp Ser Leu Ala
                    390
                                         395
Ala Gly Ala Asn Pro Ser Phe Ile Ala Ser Gln Leu Gly His Glu Asp
                                    410
                405
Ala Glu Met Val Tyr Arg Val Tyr Ser Ala Trp Ile Lys Glu Phe Asp
                                425
            420
                                                     430
Gly Glu Gln Val Glu Leu Leu Asn Gln Arg Leu Gly Phe Ala Pro Asn
                            440
Thr Pro Pro Glu Gly Lys Ile Ile Lys Ile Asn Glu Leu Asn Gln
<210> 6019
<211> 174
<212> PRT
```

<213> Enterobacter cloacae

<400> 6019

His Phe Asp Trp Phe Ala Ser His Ser Arg Gly Glu Asn Val Cys Arg 10 Ile Leu Leu Thr Gly Trp Phe Met Ser Ala Asn Thr Glu Ala Gln Gly 25 Ser Gly Arg Gly Leu Glu Ala Met Lys Trp Val Val Ala Val Leu 40 Leu Ile Val Ala Ile Val Gly Asn Tyr Leu Tyr Arg Asp Met Met Leu 55 Pro Leu Arg Ala Leu Ala Val Val Ile Leu Ile Ala Ala Gly Gly Val Ala Leu Leu Thr Thr Lys Gly Lys Ala Thr Val Ala Phe Ala Arg 8.5 90 Glu Ala Arg Thr Glu Val Arg Lys Val Ile Trp Pro Thr Arg Gln Glu 105 100 Thr Leu His Thr Thr Leu Ile Val Ala Ala Val Asn Arg Cys Asn Val 120 125 Thr Asp Pro Val Gly Thr Gly Trp Tyr Ser Gly Ser Pro Gly Ile Leu 135 140 Tyr His Trp Pro Glu Val Leu Arg Cys Leu Lys Pro Leu Lys Ser Ala

Val Ala Lys Val Leu Gly

150 160 Gly Thr Ser Phe Arg Arg Phe Pro Val Leu Lys Ala Ala 165 <210> 6020 <211> 407 <212> PRT <213> Enterobacter cloacae <400> 6020 Tyr His Arg Phe Ile Arg Val Leu Glu Gly Gln Ser Met Ser Lys Glu 10 Lys Phe Glu Arg Thr Lys Pro His Val Asn Val Gly Thr Ile Gly His Val Asp His Gly Lys Thr Thr Leu Thr Ala Ala Ile Thr Thr Val Leu Ala Lys Thr Tyr Gly Gly Ala Ala Arg Ala Phe Asp Gln Ile Asp Asn Ala Pro Glu Glu Lys Ala Arg Gly Ile Thr Ile Asn Thr Ser His Val 75 Glu Tyr Asp Thr Pro Thr Arg His Tyr Ala His Val Asp Cys Pro Gly 85 90 His Ala Asp Tyr Val Lys Asn Met Ile Thr Gly Ala Ala Gln Met Asp 100 105 Gly Ala Ile Leu Val Val Ala Ala Thr Asp Gly Pro Met Pro Gln Thr 120 Arg Glu His Ile Leu Leu Gly Arg Gln Val Gly Val Pro Tyr Ile Ile 135 140 Val Phe Leu Asn Lys Cys Asp Met Val Asp Asp Glu Glu Leu Leu Glu 150 155 Leu Val Glu Met Glu Val Arg Glu Leu Leu Ser Gln Tyr Asn Phe Pro 165 170 Gly Asp Asp Thr Pro Ile Val Arg Gly Ser Ala Leu Lys Ala Leu Glu 180 185 Gly Glu Ala Glu Trp Glu Glu Lys Ile Ile Glu Leu Ala Gly Tyr Leu 200 Asp Ser Tyr Ile Pro Glu Pro Glu Arg Ala Ile Asp Lys Pro Phe Leu 215 220 Leu Pro Ile Glu Asp Val Phe Ser Ile Ser Gly Arg Gly Thr Val Val 230 235 Thr Gly Arg Val Glu Arg Gly Ile Ile Lys Val Gly Glu Glu Val Glu 245 250 Ile Val Gly Ile Lys Glu Thr Ala Lys Ser Thr Cys Thr Gly Val Glu 265 Met Phe Arg Lys Leu Leu Asp Glu Gly Arg Ala Gly Glu Asn Val Gly 280 Val Leu Leu Arg Gly Ile Lys Arg Glu Glu Ile Glu Arg Gly Gln Val 295 Leu Ala Lys Pro Gly Ser Ile Lys Pro His Thr Lys Phe Glu Ser Glu 310 315 Val Tyr Ile Leu Ser Lys Asp Glu Gly Gly Arg His Thr Pro Phe Phe 325 330 Lys Gly Tyr Arg Pro Gln Phe Tyr Phe Arg Thr Thr Asp Val Thr Gly 345 Thr Ile Glu Leu Pro Glu Gly Val Glu Met Val Met Pro Gly Asp Asn 360 Ile Lys Met Val Val Thr Leu Ile His Pro Ile Ala Met Asp Asp Gly 375 380 Leu Arg Phe Ala Ile Arg Glu Gly Gly Arg Thr Val Gly Ala Gly Val 390 395

405

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<210> 6021
<211> 185
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<212> PRT

<213> Enterobacter cloacae

<400> 6021

Gly Ser Glu Met Ser Glu Ala Pro Lys Lys Arg Trp Tyr Val Val Gln

1 10 15

Ala Phe Ser Gly Phe Glu Gly Arg Val Ala Thr Ser Leu Arg Glu His 20 25 30

Ile Lys Leu His Asn Met Glu Glu Leu Phe Gly Glu Val Met Val Pro  $35 \hspace{1cm} 40 \hspace{1cm} 45$ 

Thr Glu Glu Val Val Glu Ile Arg Gly Gly Gln Arg Arg Lys Ser Glu 50 55 60

Arg Lys Phe Phe Pro Gly Tyr Val Leu Val Gln Met Val Met Asn Asp 65 70 75 80

Ala Ser Trp His Leu Val Arg Ser Val Pro Arg Val Met Gly Phe Ile
85
90
95

Gly Gly Thr Ser Asp Arg Pro Ala Pro Ile Ser Asp Lys Glu Val Asp 100 105 110

Ala Ile Met Asn Arg Leu Gln Gln Val Gly Asp Lys Pro Arg Pro Lys 115 120 125

Thr Leu Phe Glu Pro Gly Glu Met Val Arg Val Asn Asp Gly Pro Phe 130 135 140

Ala Asp Phe Asn Gly Val Val Glu Glu Val Asp Tyr Glu Lys Ser Arg 145 150 155 160

Leu Lys Val Ser Val Ser Ile Phe Gly Arg Ala Thr Pro Val Glu Leu 165 170 175

Asp Phe Ala Gln Val Glu Lys Ala 180 185

<210> 6022 <211> 103

<212> PRT

<213> Enterobacter cloacae

<400> 6022

Thr Pro Gly Leu Arg Ser Ser Asn Gly Gly Pro Val Val Leu Phe Thr
1 5 10 15

Gln Glu Asp Val Met Val Thr Ile Arg Leu Ala Arg His Gly Ala Lys 20 25 30

Lys Arg Pro Phe Tyr Gln Val Val Val Thr Asp Ser Arg Asn Ala Arg 35 40 45

Asn Gly Arg Phe Ile Glu Arg Val Gly Phe Phe Asn Pro Leu Ala Ala 50 55 60

Gly Ala Glu Glu Glu Thr Arg Leu Asp Leu Asp Arg Ile Ala His Trp 65 70 75 80

· Val Gly Gln Gly Val Thr Val Ser Asp Arg Val Ala Thr Leu Ile Lys 85 90 95

Ala Ala Asn Lys Ala Ala 100

<210> 6023

<211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 6023

Ser Val Thr Val Val Met Met Ser Asn Lys Ala Pro Val Glu Pro Ile

<220>

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Val Leu Gly Lys Met Gly Ser Cys Tyr Gly Ile Arg Gly Trp Leu Arg
                                25
Val Phe Ser Ser Thr Glu Asp Ala Asp Ser Ile Phe Asp Tyr Gln Pro
Trp Phe Ile Gln Lys Ala Gly Lys Trp Glu Glu Val Glu Leu Glu Ser
                        55
Trp Arg His His Asn Gln Asp Ile Ile Ile Lys Leu Lys Gly Ile Asp
                    70
                                        75
Asp Arg Asp Ala Ala Asn Ala Leu Thr Asn Cys Glu Ile Val Val Asp
                85
                                    90
Ser Ser Gln Leu Pro Gln Leu Glu Glu Gly Asp Tyr Tyr Trp Lys Asp
                                105
                                                     110
Leu Met Gly Cys Gln Val Val Thr Thr Glu Gly Tyr Ser Leu Gly Lys
        115
                            120
                                                 125
Val Ile Asp Met Met Glu Thr Gly Ser Asn Asp Val Leu Val Ile Lys
                        135
Ala Asn Leu Lys Asp Ala Phe Gly Ile Lys Glu Arg Leu Val Pro Phe
                    150
Leu Asp Gly Gln Val Ile Lys Lys Val Asp Leu Thr Thr Gln Thr Ile
                                    170
Glu Val Asp Trp Asp Pro Gly Phe
            180
                                185
<210> 6024
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 6024
Val Glu Ala Gln Asn Arg Glu Arg Asp Gly Val Leu Arg Ile Lys Ala
                                    10
Glu Met Glu Asn Leu Arg Arg Arg Thr Glu Leu Asp Val Glu Lys Ala
                                25
His Lys Phe Ala Leu Glu Lys Phe Val Asn Glu Leu Leu Pro Val Ile
                            40
Asp Ser Leu Asp Arg Ala Leu Glu Val Ala Asp Lys Ala Asn Pro Asp
Asn Ala Ala Met Ile Glu Gly Ile Glu Leu Thr Leu Lys Ser Met Leu
                                        75
Asp Val Val Arg Lys Phe Gly Val Glu Val Ile Ala Asp Thr Asp Val
                                    90
                85
Pro Leu Asp Pro Asn Val His Gln Ala Ile Ala Met Val Glu Ser Glu
                                                    110
            100
                                105
Asp Val Ala Ala Gly Asn Val Leu Gly Val Met Gln Lys Gly Tyr Thr
                           120
                                               125
Leu Asn Gly Arg Thr Ile Arg Ala Ala Met Val Thr Val Ala Lys Ala
  130
                        135
Lys Ala
145
<210> 6025
<211> 463
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(101)
```

<221>UNSURE <222>(105)

<400> 6025 Arg Phe Tyr Pro Arg Arg Glu Thr Met Phe Asp Asn Leu Thr Asp Arg 10 Leu Ser Arg Thr Leu Arg Asn Ile Ser Gly Arg Gly Arg Leu Thr Glu 25 Glu Asn Ile Lys Glu Thr Leu Arg Glu Val Arg Met Ala Leu Leu Glu Ala Asp Val Ala Leu Pro Val Val Arg Asp Phe Ile Asn Arg Val Lys 55 Glu Lys Ala Val Gly His Glu Val Asn Lys Ser Leu Thr Pro Gly Gln 75 Glu Phe Val Lys Ile Val Arg Asn Glu Leu Phe Ser Ala Met Gly Glu 90 85 Glu Asn Gln Val Xaa Asn Leu Ala Xaa Gln Pro Pro Ala Val Leu 100 105 Met Ala Gly Leu Gln Gly Ala Gly Lys Thr Thr Ser Val Gly Lys Leu 120 115 125 Gly Lys Phe Leu Arg Glu Lys His Lys Lys Lys Val Leu Val Val Ser 135 140 130 Ala Asp Val Tyr Arg Pro Ala Ala Ile Lys Gln Leu Glu Thr Leu Ala 150 155 Glu Gln Val Gly Val Asp Phe Pro Ser Asp Val Ala Gln Lys Pro 170 165 Val Asp Ile Val Asn Ala Ala Leu Lys Glu Ala Lys Leu Lys Phe Tyr 180 185 190 Asp Val Leu Leu Val Asp Thr Ala Gly Arg Leu His Val Asp Glu Ala 200 205 Met Met Asp Glu Ile Lys Gln Val His Ala Ser Ile Asn Pro Val Glu 215 220 Thr Leu Phe Val Val Asp Ala Met Thr Gly Gln Asp Ala Ala Asn Thr 230 235 Ala Lys Ala Phe Asn Glu Ala Leu Pro Leu Thr Gly Val Val Leu Thr 245 250 Lys Val Asp Gly Asp Ala Arg Gly Gly Ala Ala Leu Ser Ile Arg His 260 265 Ile Thr Gly Lys Pro Ile Lys Phe Leu Gly Val Gly Glu Lys Thr Glu 280 Ala Leu Glu Pro Phe His Pro Asp Arg Ile Ala Ser Arg Ile Leu Gly 295 300 Met Gly Asp Val Leu Ser Leu Ile Glu Asp Ile Glu Ser Lys Val Asp 315 Arg Ala Gln Ala Glu Lys Leu Ala Ser Lys Leu Lys Lys Gly Asp Gly 330 Phe Asp Leu Thr Asp Phe Leu Glu Gln Leu Arg Gln Met Lys Asn Met 345 Gly Gly Met Ala Ser Leu Met Gly Lys Leu Pro Gly Met Gly Gln Ile 360 Pro Asp Asn Val Lys Ser Gln Met Asp Asp Lys Val Leu Val Arg Met 375 380 Glu Ala Ile Ile Asn Ser Met Thr Leu Lys Glu Arg Ala Lys Pro Glu 390 395 Ile Ile Lys Gly Ser Arg Lys Arg Ile Ala Ala Gly Cys Gly Met 410 405 His Val Gln Asp Val Asn Arg Leu Leu Lys Gln Phe Asp Asp Met Gln 425 430 Arg Met Met Arg Lys Met Lys Lys Ala Gly Met Ala Glu Asp Asp Ala 440 Arg His Glu Lys His Asp Ala Ala Pro Phe Ser Leu Gly Glu

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190

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<210> 6026
<211> 262
<212> PRT
<213> Enterobacter cloacae
<400> 6026
Thr Val Lys Asp Gly Ala Met Trp Ile Gly Ile Ile Ser Leu Phe Pro
                                    10
Glu Met Phe Arg Ala Ile Thr Asp Tyr Gly Val Thr Gly Arg Ala Val
                                25
Lys Asn Gly Leu Leu Ser Ile Gln Ser Trp Ser Pro Arg Asp Phe Thr
                            40
His Asp Arg His Arg Thr Val Asp Asp Arg Pro Tyr Gly Gly Pro
                        55
                                            60
Gly Met Leu Met Met Val Gln Pro Leu Arg Asp Ala Ile His Thr Ala
                    70
                                        75
Lys Ala Ala Ala Gly Glu Gly Ala Lys Val Ile Tyr Leu Ser Pro Gln
                                    90
Gly Arg Lys Leu Asp Gln Ala Gly Val Ser Glu Leu Ala Thr Asn Gln
                                105
Lys Leu Ile Leu Val Cys Gly Arg Tyr Glu Gly Ile Asp Glu Arg Val
                            120
Ile Gln Thr Glu Ile Asp Glu Glu Trp Ser Ile Gly Asp Tyr Val Leu
                        135
Ser Gly Gly Glu Leu Pro Ala Met Thr Leu Ile Asp Ser Val Ala Arg
                    150
                                        155
Phe Ile Pro Gly Val Leu Gly His Glu Ala Ser Ala Thr Glu Asp Ser
                165
                                    170
Phe Ala Asp Gly Val Leu Asp Cys Pro His Tyr Thr Arg Pro Glu Val
                                185
Leu Glu Gly Met Glu Val Pro Ala Val Leu Leu Ser Gly Asn His Ala
       195
                            200
                                                205
Asp Ile Arg Arg Trp Arg Leu Lys Gln Ser Leu Gly Arg Thr Trp Leu
                        215
                                            220
Arg Arg Pro Glu Leu Leu Glu Asn Leu Ala Leu Thr Glu Glu Gln Ala
                    230
                                        235
Lys Leu Leu Ala Glu Phe Lys Thr Glu His Ala His Gln Gln His Glu
                                    250
                245
His Asp Gly Lys Ala
            260
<210> 6027
<211> 296
<212> PRT
<213> Enterobacter cloacae
```

<400> 6027 His Glu Gly Ala Phe Val Val Met Gln Arg Leu Glu Gln Ala Ser Arg 10 Asn Val Ile Leu Leu Phe Leu Ile Lys Thr Thr Val Asp Ala Tyr Met Pro Val Phe Ala Leu Ile Ala Leu Val Ala Tyr Ser Val Ser Leu Ala Leu Ile Ile Pro Gly Leu Leu Gln Lys Asn Ser Gly Trp Arg Arg 55 Met Ala Ile Leu Ser Ala Val Ile Ala Leu Ile Ser His Ala Phe Ala 75 Leu Glu Ser Arg Ile Ile Pro Gly Asp Gly Ser Val Gln Asn Leu Ser

```
Val Leu Asn Val Gly Ser Leu Val Ser Leu Met Ile Cys Thr Val Met
                                105
Thr Ile Val Ala Ser Lys Asn Arg Gly Trp Leu Leu Pro Ile Val
                            120
Tyr Ala Phe Ala Leu Ile Asn Leu Ala Leu Ala Thr Phe Met Pro Asn
                        135
                                            140
Glu Phe Ile Thr His Leu Glu Ala Thr Pro Gly Met Leu Val His Ile
                    150
                                        155
Gly Leu Ser Leu Phe Ala Tyr Ala Thr Leu Ile Ile Ala Ala Leu Tyr
                                    170
                165
Ala Met Gln Leu Ala Trp Ile Asp Tyr Gln Leu Lys Asn Lys Lys Leu
          180
                                185
Ala Phe Asn His Glu Met Pro Pro Leu Met Val Ile Glu Arg Lys Met
                            200
Phe His Ile Thr Gln Val Gly Val Val Leu Leu Thr Leu Thr Leu Cys
                        215
                                            220
Thr Gly Leu Phe Tyr Met Lys Asn Leu Phe Ser Val Glu Asn Ile Asp
                    230
                                        235
Lys Ala Val Leu Ser Ile Ile Ala Trp Phe Val Tyr Ile Val Leu Leu
                245
                                    250
Trp Gly His Tyr His Glu Gly Trp Arg Gly Arg Arg Val Val Trp Phe
                                265
Asn Val Ala Gly Ala Gly Ile Leu Thr Leu Ala Tyr Phe Gly Ser Arg
                            280
Phe Ile Gln Gln Phe Ala Gly
<210> 6028
<211> 434
<212> PRT
<213> Enterobacter cloacae
<400> 6028
Gln Lys Glu Phe Pro Leu Glu His Ile Ser Thr Thr Thr Leu Ile Val
                                    1.0
Ile Leu Val Ile Met Val Val Ile Ser Ala Tyr Phe Ser Gly Ser Glu
                                25,
Thr Gly Met Met Thr Leu Asn Arg Tyr Arg Leu Arg His Arg Ala Lys
                            40
Gln Gly Asn Arg Ala Ala Arg Arg Val Glu Lys Leu Leu Arg Lys Pro
                        55
Asp Arg Leu Ile Ser Leu Val Leu Ile Gly Asn Asn Leu Val Asn Ile
                   70
                                        75
Leu Ala Ser Ala Leu Gly Thr Ile Val Gly Met Arg Leu Tyr Gly Asn
               85
                                    90
Ala Gly Val Ala Ile Ala Thr Gly Val Leu Thr Phe Val Val Leu Val
                               105
Phe Ala Glu Val Leu Pro Lys Thr Ile Ala Ala Leu Tyr Pro Glu Lys
                            120
Val Ala Tyr Pro Ser Ser Phe Leu Leu Ala Pro Leu Leu Ile Leu Met
                        135
Met Pro Leu Val Trp Leu Leu Asn Met Val Thr Arg Val Leu Met Arg
                    150
                                        155
Met Val Gly Ile Lys Ala Asp Val Thr Ile Ser Ser Ala Leu Ser Lys
               165
                                    170
Asp Glu Leu Arg Thr Ile Val Asn Glu Ser Arg Ser Gln Ile Ser Arg
           180
                                185
Arg Asn Gln Asp Met Leu Leu Ser Val Leu Asp Leu Glu Lys Val Ser
                           200
                                                205
Val Asp Asp Ile Met Val Pro Arg Asn Glu Ile Val Gly Ile Asp Ile
```

215

```
Asn Asp Asp Trp Lys Ala Ile Val Arg Gln Leu Thr His Ser Pro His
                    230
                                        235
Gly Arg Ile Val Leu Tyr Arg Asp Ser Leu Asp Asp Ala Ile Ser Met
                                    250
Leu Arg Val Arg Glu Ala Tyr Arg Leu Met Thr Glu Lys Asn Glu Phe
                                265
Thr Lys Glu Val Met Leu Arg Ala Ala Asp Glu Ile Tyr Tyr Val Pro
                            280
Glu Gly Thr Pro Leu Ser Thr Gln Leu Val Lys Phe Gln Arg Asn Lys
                        295
                                             300
Lys Lys Val Gly Leu Val Val Asp Glu Tyr Gly Asp Ile Gln Gly Leu
                    310
                                        315
Val Thr Val Glu Asp Ile Leu Glu Glu Ile Val Gly Asp Phe Thr Thr
                                    330
                325
Ser Met Ser Pro Ser Leu Ala Glu Glu Val Thr Pro Gln Asn Asp Gly
            340
                                345
Ser Val Leu Ile Asp Gly Ser Ala Asn Ile Arg Glu Ile Asn Lys Ala
                            360
                                                 365
Phe Asn Trp His Leu Pro Glu Asp Glu Ala Arg Thr Met Asn Gly Met
                        375
                                             380
Ile Leu Glu Ala Leu Glu Glu Ile Pro Ala Thr Gly Thr Arg Val Arg
                    390
                                         395
Ile Glu Gln Tyr Asp Ile Asp Ile Leu Asp Val Gln Asp Asn Met Ile
                405
                                    410
Lys Gln Val Lys Val Leu Pro Val Lys Pro Leu Arg Glu Ser Ile Ala
            420
                                425
Glu
```

<210> 6029 <211> 365 <212> PRT

<213> Enterobacter cloacae

<400> 6029

10 Lys Glu Ser Arq His His Met Ala Val Ala Lys Lys Ile Thr Ile Asn 25 Asp Val Ala Leu Ala Ala Gly Val Ser Val Ser Thr Val Ser Leu Val Leu Ser Gly Lys Gly Arg Ile Ser Pro Ala Thr Gly Gln Arg Val Asn 55 Glu Ala Val Glu Gln Leu Gly Phe Val Arg Asn Arg Gln Ala Ser Ala 75 Leu Arg Gly Gln Ser Gly Val Ile Gly Leu Ile Val Arg Asp Leu 85 90 Ala Ser Pro Phe Tyr Ala Glu Leu Thr Ala Gly Leu Thr Glu Ala Leu 105 Glu Ala Gln Gly Arg Met Val Phe Leu Leu His Gly Gly Arg Glu Pro 120 125 Glu Gln Leu Leu Ser Arg Leu Asp Leu Leu Leu Thr Gln Gly Val Asp 135 140 Gly Val Ile Val Ala Gly Ala Ser Gly Val Gly Ser Glu Leu Cys Glu 155 Arg Ala Ala Gln Lys Gly Val Pro Leu Val Phe Ala Ser Arg Ala Ser 170 Tyr Leu Asp Glu Ala Asp Thr Leu Arg Pro Asp Asn Met Gln Ala Ala 185 Gln Met Leu Thr Glu His Leu Ile His Arg Gly His Gln Arg Ile Ala 200

Arg Pro Arg Trp Gly Glu Lys Ile Lys Arg Phe Ser Asp Leu Ile Ile

```
Trp Leu Gly Gly Lys Ser Ser Ser Leu Thr Arg Ala Glu Arg Val Gly
                        215
                                           220
Gly Tyr Cys Ser Thr Leu Ile Lys Tyr Gly Leu Pro Phe His Ser Glu
                    230
                                       235
Trp Val Val Glu Cys Glu Ser Ser Gln Lys Lys Ala Ala Glu Ala Ile
                245
                                    250
Gly Thr Leu Leu Arg Asn Ser Pro Thr Ile Ser Ala Val Ile Cys Tyr
                                265
Asn Asp Val Ile Ala Met Gly Ala Trp Phe Gly Leu Ile Arg Ala Gly
                            280
                                                285
Arg Gln Ser Gly Glu Gly Val Glu Thr Phe Phe Gly His Gln Val
                        295
                                            300
Ala Leu Gly Ala Phe Ala Asp Val Gly Glu Asn Ala Leu Asp Asp Leu
                    310
                                        315
Pro Ile Val Trp Ala Thr Thr Pro Ala Arg Glu Met Gly Tyr Thr Leu
                                    330
                325
Ala Glu Arg Ile Met Gln Arg Ile Glu Asn Thr Asp Val Gln Ala Gly
            340
                                345
His Gln Ile Val Ala Ala Arg Leu Leu Thr Val Lys
                            360
<210> 6030
<211> 231
<212> PRT
<213> Enterobacter cloacae
<400> 6030
Ile Ser Phe Tyr Pro Leu Arg Ser Arg Phe Met Thr Thr Lys Ala Ala
                                    10
Gln Lys Ile Ser Leu Trp Glu Phe Phe Gln Gln Leu Gly Lys Thr Phe
                                25
Met Leu Pro Val Ala Leu Leu Ser Phe Cys Gly Ile Met Leu Gly Ile
Gly Ser Ser Leu Ser Ser His Asp Val Ile Thr Leu Ile Pro Phe Leu
Gly Asn Pro Val Leu Gln Ala Ile Phe Ile Trp Met Ser Lys Val Gly
                                        75
Ser Phe Ala Phe Ser Phe Leu Pro Val Met Phe Cys Ile Ala Ile Pro
                85
                                    90
Leu Gly Leu Ala Arg Glu Asn Lys Gly Val Ala Ala Phe Ala Gly Phe
                                105
Val Gly Tyr Ala Val Met Asn Leu Ala Val Asn Phe Trp Leu Thr Ala
                            120
       115
                                                125
Lys Gly Ile Leu Pro Thr Thr Asp Ala Ala Val Lys Ala Asn Asn
                        135
                                            140
Ile Gln Ser Val Ile Gly Ile Gln Ser Ile Asp Thr Gly Ile Leu Gly
                    150
                                        155
Ala Val Ile Ala Gly Val Ile Ile Trp Met Leu His Glu Arg Phe His
               165
                                    170
Asn Ile Arg Leu Pro Asp Ala Leu Ala Phe Phe Gly Gly Thr Arg Phe
           180
                                185
Val Pro Ile Ile Thr Leu Val Val Met Gly Leu Phe Gly Leu Ile Ile
                            200
                                                205
Pro Leu Ile Trp Pro Ile Phe Ala Met Gly Asp His Arg Asp Trp Pro
His Tyr Gln Arg Arg Gly
<210> 6031
<211> 201
<212> PRT
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## <213> Enterobacter cloacae

<400> 6031 Gly Gly Phe Thr Leu Arg Ser Thr Val Met Phe Asp Phe Ser Thr Val 10 Val Asp Arg His Gly Thr Trp Cys Thr Gln Trp Asp Tyr Val Ala Asp 25 Arg Phe Gly Ala Ala Asp Leu Leu Pro Phe Thr Ile Ser Asp Met Asp 40 Phe Ala Thr Ala Pro Cys Ile Thr Asp Ala Leu His Gln Arg Ile Asn 55 His Gly Val Phe Gly Tyr Ser Arg Trp Lys Asn Asp Glu Phe Leu Ala 70 75 Ala Val Ala His Trp Phe Arg Gln Arg Phe Asn Ser Gln Ile Asp Thr 85 90 Glu Thr Val Val Tyr Gly Pro Ser Val Ile Tyr Met Val Ser Glu Leu 105 Ile Arg Leu Trp Ser Ser Pro Gly Asp Gly Val Val His Thr Pro 120 Ala Tyr Asp Ala Phe Tyr Lys Ala Ile Glu Gly Asn Gln Arg Thr Val 135 Val Ser Val Pro Met Gln Lys Thr Ala His Gly Trp Glu Gly Asp Met 150 155 Ala Ser Leu Glu Thr Ala Leu Ser Lys Pro Glu Asn Lys Val Leu Leu 170 Leu Cys Tyr Pro Gln Asn Pro Thr Gly Lys Ile Trp Thr Arg Glu Ala 185 Leu Asn Thr Met Gly Gly Pro Val 195

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<210> 6032
<211> 331
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<211> 331 <212> PRT

<213> Enterobacter cloacae

<400> 6032

Phe Gly Arg Phe Leu Pro Trp Gly Ile Thr Gly Ile Gly Arg Ile Ile Asn Gly Ala Gly Asp Phe Gly Pro Met Ile Phe Gly Thr Gly Glu Arg 25 Leu Leu Pro Phe Gly Leu Gln His Ile Leu Val Ala Leu Ile Arq Phe Thr Glu Ala Gly Gly Thr Met Asp Val Cys Gly His Ser Val Ser 55 Gly Ala Leu Thr Ile Phe Gln Ala Gln Leu Ser Cys Pro Thr Thr His 70 75 Gly Phe Ser Glu Ser Ala Thr Arg Phe Leu Ser Gln Gly Lys Met Pro 90 8.5 Ala Phe Leu Gly Gly Leu Pro Gly Ala Ala Leu Ala Met Tyr His Cys 100 105 110 Ala Arg Pro Glu Asn Arg His Lys Ile Lys Gly Leu Leu Ile Ser Gly 120 125 Val Ile Ala Cys Val Val Gly Gly Thr Thr Glu Pro Ile Glu Phe Leu 135 140 Phe Leu Phe Val Ala Pro Val Leu Tyr Leu Ile His Ala Val Leu Thr 150 155 Gly Leu Gly Phe Thr Val Met Ala Val Leu Gly Val Thr Ile Gly Asn 170 Thr Asp Gly Asn Val Ile Asp Phe Val Val Phe Gly Ile Leu His Gly 185 Leu Ser Thr Lys Trp Tyr Leu Val Pro Val Val Ala Ala Ile Trp Phe

200 Ala Val Tyr Tyr Gly Ile Phe Arg Phe Ala Ile Thr Arg Phe Asn Leu 215 220 Lys Thr Pro Gly Arg Asp Thr Asp Thr Ala Thr Ser Val Glu Gln Ala 230 235 Val Ala Gly Thr Val Gly Lys Ser Gly Tyr Asn Thr Pro Ala Ile Leu 245 250 Ala Ala Leu Gly Gly Ala Asp Asn Ile Thr Ser Leu Asp Asn Cys Ile 260 265 Thr Arg Leu Arg Leu Ser Val Ala Asp Met Ser Lys Val Asp Thr Asn 280 Ala Leu Lys Ala Asn Arg Ala Ile Gly Val Val Gln Leu Asn Gln His 295 300 Asn Leu Gln Val Val Ile Gly Pro Gln Val Gln Ser Val Lys Asp Glu 310 315 Leu Ala Thr Leu Met Arg Thr Val Glu Ala 325 <210> 6033 <211> 345 <212> PRT <213> Enterobacter cloacae <400> 6033 Leu Ser Ala Arg Gly Gly Thr Met Thr Gln Pro Leu Ala Gly Lys His Ile Leu Ile Val Glu Asp Glu Pro Val Phe Arg Ser Leu Leu Asp Ser Trp Leu Ser Ser Leu Gly Ala Thr Thr Ser Leu Ala Glu Asp Gly Val Glu Ala Leu Glu Lys Met Ala Ser Met Ala Pro Asp Leu Met Ile Cys Asp Leu Glu Met Pro Arg Met Asp Gly Leu Met Leu Val Glu Asn Leu 70 75 Arg Asn Glu Gly Tyr Gln Thr Pro Ile Leu Val Ile Ser Ala Thr Glu 85 Asn Met Ala Asp Ile Ala Lys Ala Leu Arg Leu Gly Val Gln Asp Ile 105 Leu Leu Lys Pro Val Lys Asp Leu Asn Arg Leu Arg Glu Thr Val Leu 120 115 125 Ala Cys Leu Tyr Pro Asn Met Phe Asn Ser Arg Val Glu Glu Glu Glu 135 140 Arg Leu Phe Gln Asp Trp Asp Ala Leu Val Ser Asn Pro Leu Ala Ala 150 155 Ala Lys Leu Gln Glu Leu Gln Pro Pro Val Gln Gln Asn Ile Ser 165 170 His Cys Arg Val Asn Tyr Arg Gln Leu Val Ala Ala Asp Gln Pro Gly 180 185 Leu Val Leu Asp Ile Ala Pro Leu Ser Asp Ser Asp Leu Ala Phe Tyr 200 205 Cys Leu Asp Val Thr Arg Ala Gly Asp Asn Gly Val Leu Ala Ala Leu 215 220 Leu Leu Arg Ala Leu Phe Asn Gly Leu Leu Gln Glu Gln Leu Ser His 230 235 Gln Gly Gln Arg Leu Pro Glu Leu Gly Ser Leu Leu Lys Gln Val Asn 250 Gln Leu Phe Arg Gln Ala Asn Leu Pro Gly Gln Phe Pro Leu Leu Val 265 Gly Tyr Tyr His Ser Gly Leu Asn Asn Leu Ile Leu Val Ser Ala Gly 280

Leu Asn Ala Thr Leu Asn Thr Gly Glu His His Ile Gln Val Ser Asn

```
295
Gly Val Pro Leu Gly Thr Leu Gly Asn Thr Tyr Leu Asn Gln Ile Ser
                    310
                                        315
His Arg Cys Thr Ser Trp Gln Cys Gln Ile Trp Gly Ala Gly Gly Arg
                325
                                    330
Leu Arg Leu Met Leu Ser Thr Glu
            340
                                345
<210> 6034
<211> 318
<212> PRT
<213> Enterobacter cloacae
<400> 6034
Ala Gly Ala Leu Thr Leu Cys Arg Glu Ser Arg Gly Ser Lys Thr Gly
Leu Met Arg Lys Val Lys Ile Gly Leu Ala Leu Gly Ser Gly Ala Ala
            20
                                25
Arg Gly Trp Ser His Ile Gly Val Ile Asn Thr Leu Asn Gln Met Gly
Ile Asp Val Asp Ile Val Ala Gly Cys Ser Ile Gly Ser Leu Val Gly
Ser Ala Tyr Ala Cys Gly Lys Leu Pro Glu Leu Glu Ser Trp Val Arg
                                        75
Ser Phe Ser Tyr Trp Asp Val Leu Arg Leu Met Asp Leu Ser Trp Gln
                85
Arg Gly Gly Leu Leu Arg Gly Glu Arg Val Phe Asn Gln Phe Arg Lys
            100
                                105
Ile Met Pro Leu Ala Asp Phe Ser His Cys Gln Met Pro Phe Gly Ala
                            120
                                                125
Val Ala Thr Asn Leu Ser Thr Gly Arg Glu Leu Trp Leu Thr Glu Gly
                        135
                                            140
Asp Ile His Leu Ala Val Arg Ala Ser Cys Ser Met Pro Gly Leu Met
                    150
                                        155
Ala Pro Val Pro His Asn Gly Tyr Trp Leu Val Asp Gly Gly Val Val
               165
                                    170
                                                        175
Asn Pro Val Pro Val Ser Leu Thr Arg Ala Met Gly Ala Asp Ile Val
                               185
           180
                                                   190
Ile Ala Val Asp Leu Gln His Asp Ala His Leu Met Gln Gln Asp Leu
                            200
Met Pro Val Asn Leu Gln Ser Asp Asp Ala Glu Glu Lys Leu Ala
                       215
                                            220
Trp His Ala Arg Leu Arg Gly Arg Ile Gly Arg Leu Ala Ala Arg Arg
                                        235
                   230
Ala Val Thr Ala Pro Asn Ala Ile Glu Ile Met Thr Thr Ser Ile Gln
                                   250
               245
Ile Leu Glu Asn Arg Leu Lys Arg Asn Arg Met Ala Gly Asp Pro Pro
                               265
Asp Ile Leu Ile Gln Pro Tyr Cys Pro Gln Ile Ser Thr Leu Asp Phe
                            280
His Arg Ala Glu Ala Ala Ile Ala Ala Gly Ser Leu Ala Val Glu Lys
                       295
Lys Ile Asp Glu Leu Leu Pro Phe Val Arg Thr Ala Arg
                    310
                                        315
<210> 6035
<211> 280
<212> PRT
<213> Enterobacter cloacae
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```
Cys Cys Pro Arg Ser Lys Gln Ser Asp Phe Ile Phe Gln Ile Ala Leu
Pro Val Phe Leu Leu Ala Val Leu Leu Ser Leu Gln Val Ser Cys Val
                                25
Phe Val Leu Ile Asp Arg Gln Arg Val Leu Phe Arg Pro Val Leu Val
Ala Glu Thr Val Tyr Ser Thr Arg Tyr Ser Met His Lys Ser Ser Lys
                        55
Leu Glu Gln Phe Arg Arg Ile Ser Met Ala Ala Leu Asn Ser Lys Val
                    70
                                        75
Arg Lys Ala Val Ile Pro Val Ala Gly Leu Gly Thr Arg Met Leu Pro
                                    90
                85
Ala Thr Lys Ala Ile Pro Lys Glu Met Leu Pro Leu Val Asp Lys Pro
            100
                                105
                                                     110
Leu Ile Gln Tyr Val Val Asn Glu Cys Ile Ala Ala Gly Ile Thr Glu
                            120
                                                 125
Ile Val Leu Val Thr His Ser Ser Lys Asn Ser Ile Glu Asn His Phe
                        135
                                             140
Asp Thr Ser Phe Glu Leu Glu Ala Met Leu Glu Lys Arg Val Lys Arg
Gln Leu Leu Glu Glu Val Gln Ser Ile Cys Pro Pro His Val Thr Ile
                                    170
Met Gln Val Arg Gln Gly Leu Ala Lys Gly Leu Gly His Ala Val Leu
                                185
Cys Ala His Pro Val Val Gly Asp Glu Pro Val Ala Val Ile Leu Pro
                            200
Asp Val Ile Leu Asp Glu Tyr Glu Ser Asp Leu Ser Gln Glu Asn Leu
                        215
                                            220
Ala Glu Met Ile Lys Arg Phe Asp Glu Thr Gly Ser Ser Gln Ile Met
                    230
                                        235
Val Glu Pro Val Asp Asp Val Thr Ala Tyr Gly Val Val Asp Cys Lys
                245
                                    250
Gly Val Asp Leu Gln Pro Gly Glu Ser Val Pro Ile Val Val Phe Thr
            260
Thr Gly Ala Asp Gly Ala Gly
<210> 6036
<211> 297
<212> PRT
<213> Enterobacter cloacae
<400> 6036
```

Cys Leu Thr Thr Gln Thr Ser Gln Ile His Lys Gln Asp Phe Pro Ala 10 Met Gln Ser Leu Gln Arg Lys Val Leu Arg Thr Ile Cys Pro Asp Gln 25 Lys Gly Leu Ile Ala Arg Ile Thr Asn Ile Cys Tyr Lys His Glu Leu 40 Asn Ile Val Gln Asn Asn Glu Phe Val Asp His Arg Thr Gly Arg Phe Phe Met Arg Thr Glu Leu Glu Gly Ile Phe Asn Asp Thr Thr Leu Leu Ala Asp Leu Asp Ser Ala Leu Pro Glu Gly Ser Val Arg Glu Leu Asn Pro Ala Gly Arg Arg Ile Val Ile Leu Val Thr Lys Glu Ala His 105 Cys Leu Gly Asp Leu Leu Met Lys Ala Asn Tyr Gly Gly Leu Asp Val 120 125 Glu Ile Ala Ala Val Ile Gly Asn His Glu Thr Leu Arg Thr Leu Val 135

```
Glu Arg Phe Asp Ile Pro Phe Glu Leu Val Ser His Glu Gly His Thr
                    150
                                        155
Arg Glu Glu His Asp Asn Leu Met Ala Ala Ala Ile Glu Ala His Asn
                                    170
Pro Asp Tyr Val Val Leu Ala Lys Tyr Met Arg Val Leu Thr Pro Ser
                                185
Phe Val Ala Arg Phe Pro Asn Lys Ile Ile Asn Ile His His Ser Phe
                            200
                                                 205
Leu Pro Ala Phe Ile Gly Ala Arg Pro Tyr His Gln Ala Tyr Glu Arg
                        215
                                             220
Gly Val Lys Ile Ile Gly Ala Thr Ala His Tyr Val Asn Asp Asn Leu
                    230
                                        235
Asp Glu Gly Pro Ile Ile Met Gln Asp Val Ile His Val Asp His Thr
                                    250
                245
Tyr Thr Ala Glu Asp Met Met Arg Ala Gly Arg Asp Val Glu Lys Asn
            260
                                265
                                                     270
Val Leu Ser Arg Ala Leu Tyr Gln Val Leu Ala Gln Arg Val Phe Val
                            280
                                                 285
Tyr Gly Asn Arg Thr Ile Ile Leu
   290
                        295
<210> 6037
<211> 165
<212> PRT
<213> Enterobacter cloacae
<400> 6037
Arg Leu Ile Phe Cys Ser Arg Lys Arg Ile Val Ser Gln Leu Cys Pro
                                    10
                                                         15
Cys Gly Ser Ala Leu Glu Tyr Ser Leu Cys Cys Gln Arg Tyr Leu Ser
                                25
                                                     30
Gly Lys Gln Val Ala Pro Asp Pro Ser His Leu Met Arg Ser Arg Tyr
                            40
Thr Ala Phe Val Ile Lys Asn Ala Asp Tyr Leu Ile Lys Thr Trp His
Pro Ser Cys His Ala Ala Asp Phe Arg Gln Glu Ile Glu Ala Gly Phe
                                        75
Ala Asn Thr Val Trp Gln Gly Leu Thr Val Phe Glu Ala Ala Pro Gly
                85
                                    90
Arg Asp Ala Asn Glu Gly Tyr Val Ser Phe Val Ala Arg Phe Ser Glu
            100
                                105
                                                     110
Gln Asn Lys Pro Gly Ala Ile Ile Glu Arg Ser Arg Phe Leu Lys Asp
        115
                            120
                                                 125
Ser Gly Gln Trp Tyr Tyr Ile Asp Gly Thr Arg Pro Gln Phe Gly Arg
                        135
                                            140
Asn Asp Pro Cys Pro Cys Gly Ser Gly Lys Lys Phe Lys Lys Cys
                    150
145
                                        155
Gly Ser Asn Ala
                165
<210> 6038
<211> 74
<212> PRT
<213> Enterobacter cloacae
<400> 6038
Gly Tyr Thr Arg Ala Thr Met Ala His Thr Lys Arg Ser Asp Leu Ala
Arg Ala Ser Gly Pro His Lys Val Arg Arg Ser Pro Asp Trp Ser Leu
```

20 25 30 Gln Leu Asp Ser Met Lys Ser Glu Ser Leu Val Ile Val Asp Gln Asn

```
40
Ala Thr Val Asn Thr Phe Pro Gly Leu Val His Thr Ala Arg His Thr
                        55
Met Gly Val Gly Cys Lys Arg Ser Arg
<210> 6039
<211> 63
<212> PRT
<213> Enterobacter cloacae
<400> 6039
Glu Ser Gly Pro Cys Leu Ser Ser Ser Val Ala Gly His Pro Leu Arg
                                    10
Pro Ala Arg Asp Arg Leu Gly Glu Pro Leu Pro His Leu Leu Ala
            20
                                25
Asn Pro Ile Trp Ala His Pro Met Ala Arg Gly Pro Lys Val Pro Leu
                            40
Phe Gly Leu Ala Thr Leu Cys Gly Ile Ser Tyr Arg Phe Gln
    50
                        55
<210> 6040
<211> 215
<212> PRT
<213> Enterobacter cloacae
<400> 6040
Val Ser Gln Gln Val Ser Thr Val Leu Asn Lys Leu Ser Arg Leu Leu
                                    10
Glu Gln Ala Gly Ile Ser Leu Thr Asp His Gln Lys Asn Gln Leu Val
            20
                                25
Ala Tyr Val Asp Met Leu Asn Lys Trp Asn Lys Ala Tyr Asn Leu Thr
                            40
Ser Val Arg Asp Pro Asn Glu Met Leu Ile Arg His Ile Leu Asp Ser
Ile Val Val Ala Pro Tyr Leu Asn Gly Glu Arg Phe Ile Asp Val Gly
                    70
Thr Gly Pro Gly Leu Pro Gly Val Pro Leu Ser Ile Val Arg Pro Glu
Ser His Phe Thr Leu Leu Asp Ser Leu Gly Lys Arg Val Arg Phe Leu
                                .105
Arg Gln Val Gln His Glu Leu Lys Leu Glu Asn Ile Thr Pro Val Gln
        115
                            120
                                                 125
Ser Arg Val Glu Glu Phe Pro Ala Glu Pro Pro Phe Asp Gly Val Ile
                        135
                                            140
Ser Arg Ala Phe Ala Ser Leu Asn Asp Met Val Ser Trp Cys Lys His
                    150
                                        155
Leu Pro Ala Glu Lys Gly Arg Phe Tyr Ala Leu Lys Gly Gln Leu Pro
               165
                                    170
Gly Asp Glu Ile Glu Gln Leu Pro Asp Gly Phe Ala Val Glu Ser Ile
                                185
                                                    190
Glu Lys Leu Gln Ile Pro Gln Leu Glu Gly Glu Arg His Leu Val Ile
       195
                            200
Ile Lys Pro Asn Thr Phe
                        215
    210
<210> 6041
<211> 137
<212> PRT
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<213> Enterobacter cloacae

```
<400> 6041
Gln Arg Val Lys Gly Ile Met Ala Ser Glu Asn Met Thr Pro Gln Asp
                                    10
Tyr Ile Gly His His Leu Asn Asn Leu Gln Leu Asp Leu Arg Thr Phe
            20
                                25
Ser Leu Val Asp Pro His Asn Pro Pro Ala Thr Phe Trp Thr Ile Asn
                            40
Ile Asp Ser Met Phe Phe Ser Val Val Leu Gly Leu Leu Phe Leu Ala
                        55
Met Phe Arg Ser Val Ala Lys Lys Ala Thr Ser Gly Val Pro Gly Lys
                    70
Phe Gln Thr Phe Ile Glu Met Ile Ile Gly Phe Val His Gly Ser Val
                                    90
Lys Glu Leu Tyr His Gly Lys Ser Lys Leu Ile Ala Pro Leu Ala Leu
                                105
Asn Val Phe Val Trp Val Phe Leu Met Thr Leu Met Asp Leu Leu Pro
                            120
Ile His Phe Leu Pro Trp Asp Arg
<210> 6042
<211> 649
<212> PRT
<213> Enterobacter cloacae
<400> 6042
Asn Pro Arg Pro Gly Leu Gln Ser Ile Phe Ile Pro Leu Tyr Ala Arg
                                    10
Gln Thr Thr Met Phe Tyr Gln Asp Pro Phe Asp Val Ile Ile Ile Gly
                                25
Gly Gly His Ala Gly Thr Glu Ala Ala Met Ala Ala Ala Arg Met Gly
                            40
Gln Gln Thr Leu Leu Thr His Asn Ile Asp Thr Leu Gly Gln Met
                        55
Ser Cys Asn Pro Ala Ile Gly Gly Ile Gly Lys Gly His Leu Val Lys
                    70
                                        75
Glu Val Asp Ala Leu Gly Gly Leu Met Ala Lys Ala Ile Asp His Ala
                                    90
               8.5
Gly Ile Gln Phe Arg Ile Leu Asn Ala Ser Lys Gly Pro Ala Val Arg
                               105
           100
Ala Thr Arg Ala Gln Ala Asp Arg Val Leu Tyr Arg Gln Ala Val Arg
                                                125
                            120
Thr Ala Leu Glu Asn Gln Pro Asn Leu Met Ile Phe Gln Gln Ala Val
                       135
                                            140
Glu Asp Leu Ile Val Glu Asn Asp Arg Val Val Gly Ala Val Thr Gln
                   150
                                        155
Met Gly Leu Lys Phe Arg Ala Lys Ala Val Val Leu Thr Val Gly Thr
                                    170
Phe Leu Asp Gly Lys Ile His Ile Gly Leu Asp Asn Tyr Ser Gly Gly
                                185
Arg Ala Gly Asp Pro Pro Ser Ile Pro Leu Ser Arg Arg Leu Arg Glu
                            200
Leu Pro Leu Arg Val Ser Arg Leu Lys Thr Gly Thr Pro Pro Arg Ile
                        215
                                            220
Asp Ala Arg Thr Ile Asp Phe Ser Val Leu Ala Gln Gln His Gly Asp
                    230 .
                                        235
Asn Pro Met Pro Val Phe Ser Phe Met Gly Asn Ala Ala Gln His Pro
               245
                                    250
Gln Gln Val Pro Cys Tyr Ile Thr His Thr Asn Glu Lys Thr His Asp
                               265
```

Val Ile Arg Asn Asn Leu Asp Arg Ser Pro Met Tyr Ala Gly Val Ile

```
280
                                                 285
Glu Gly Ile Gly Pro Arg Tyr Cys Pro Ser Ile Glu Asp Lys Val Met
                        295
                                             300
Arg Phe Ala Asp Arg Asn Gln His Gln Ile Phe Leu Glu Pro Glu Gly
                    310
                                        315
Leu Thr Ser Asn Glu Ile Tyr Pro Asn Gly Ile Ser Thr Ser Leu Pro
                                    330
                325
Phe Asp Val Gln Met Gln Ile Val Arg Ser Met Gln Gly Met Glu Asn
            340
                                345
Ala Lys Ile Val Arg Pro Gly Tyr Ala Ile Glu Tyr Asp Phe Phe Asp
                            360
                                                 365
Pro Arg Asp Leu Lys Pro Thr Leu Glu Ser Lys Phe Ile Gln Gly Leu
                        375
                                             380
Phe Phe Ala Gly Gln Ile Asn Gly Thr Thr Gly Tyr Glu Glu Ala Ala
                    390
                                        395
Ala Gln Gly Leu Leu Ala Gly Leu Asn Ala Arg Phe Ser Ala Glu
                405
                                    410
Lys Glu Gly Trp Ala Pro Ala Arg Ser Gln Ala Tyr Leu Gly Val Leu
            420
                                425
Val Asp Asp Leu Cys Thr Leu Gly Thr Lys Glu Pro Tyr Arg Met Phe
        435
                            440
Thr Ser Arg Ala Glu Tyr Arg Leu Met Leu Arg Glu Asp Asn Ala Asp
                        455
Leu Arg Leu Thr Glu Val Gly Arg Glu Leu Gly Leu Val Asp Asp Glu
                    470
                                        475
Arg Trp Ala Arg Phe Asn Glu Lys Leu Glu Arg Ile Glu Gln Glu Arg
                                 490
Gln Arg Leu Lys Thr Thr Trp Val Asn Pro Gln Ala Glu Thr Ala Ala
            500
                                505
Glu Val Asn Ala His Leu Thr Ala Pro Leu Ser Arg Glu Ala Ser Gly
                            520
Glu Asp Leu Leu Arg Arg Pro Glu Val Thr Tyr Glu Asn Leu Val Lys
                        535
                                             540
Leu Thr Ala Phe Ala Pro Gly Leu Glu Asp Ala Glu Ala Ala Glu Gln
                    550
                                        555
Val Glu Ile Gln Val Lys Tyr Glu Gly Tyr Ile Ala Arg Gln Gln Asp
                565
                                    570
Glu Ile Glu Lys Gln Gln Arg Asn Glu Asn Thr Leu Leu Pro Glu Met
                                585
Leu Asp Tyr Arg Gln Val Thr Gly Leu Ser Asn Glu Val Ile Ala Lys
        595
                            600
                                                 605
Leu Asn Asp His Lys Pro Val Ser Ile Gly Gln Ala Ser Arg Ile Ser
                        615
                                            620
Gly Val Thr Pro Ala Ala Ile Ser Ile Leu Leu Val Trp Leu Lys Lys
                    630
                                        635
Gln Gly Met Leu Arg Arg Ser Ala
                645
<210> 6043
<211> 152
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<212> PRT

<213> Enterobacter cloacae

<400> 6043

 Cys
 Leu
 Thr
 Leu
 Ser
 Leu
 Lys
 Gly
 Arg
 Phe
 Ile
 Arg
 His
 Ala
 Ala
 Ala
 Tyr

 1
 5
 10
 15
 15

 Leu
 Glu
 Glu
 Ser
 Arg
 Ser
 Lys
 Asn
 Val
 Met
 Ser
 Val
 Ser
 Leu
 Leu
 Ser

 Arg
 Asn
 Val
 Ala
 Arg
 Lys
 Leu
 Leu
 Phe
 Ile
 Gln
 Phe
 Leu
 Ala
 Val
 Ile

 Ala
 Ser
 Gly
 Leu
 Phe
 Ser
 Leu
 Lys
 Asp
 Pro
 Phe
 Trp
 Gly
 Ile
 Ser

```
55
Ala Ala Cys Gly Gly Leu Ala Val Leu Pro Asn Val Leu Phe Met
                    70
                                       75
Ile Phe Ala Trp Arq His Gln Ala His Thr Pro Ala Lys Gly Arq Val
               85
                                    90
Ala Trp Ser Phe Ala Leu Gly Glu Val Cys Lys Val Leu Leu Thr Phe
                                105
Ala Leu Leu Val Met Ala Leu Ala Val Leu Lys Val Val Phe Met Pro
                           120
Leu Ile Ala Thr Trp Val Leu Val Leu Val Gln Val Leu Ala Pro
                        135
Ala Val Ile Asn Asn Lys Gly
<210> 6044
<211> 256
<212> PRT
<213> Enterobacter cloacae
<400> 6044
Arg Ile Pro Phe Pro Thr Cys Asn Asn Asp Tyr Ser Gly Ser Val Phe
                                    10
Ala Glu Pro Val Phe Lys Val Ala Ile Met Leu Asn Ala Ile Leu Leu
            20
                                25
Ala Gly Leu Leu Ser Thr Gly His Ser Trp Ala Asn Ile Val Ile
                            40
Asn Gly Thr Arg Val Leu Tyr Pro Glu Asn Asn Lys Glu Val Ile Val
                        55
                                            60
Gln Leu Met Asn Thr Gly Asp Ala Pro Ala Leu Val Gln Ser Trp Ile
                    70
                                        75
Asp Asp Gly Asp Ile Asn Ser Thr Pro Glu Thr Ala Asn Val Pro Phe
                85
                                    90
Leu Leu Ser Pro Pro Val Ile Lys Val Asn Glu His Asn Gly Gln Gln
                                105
Leu Arg Ile Lys Lys Leu Pro Ser Ser Leu Pro Ala Asp Arg Glu Ser
                            120
                                                125
Val Phe Phe Leu Asn Val Leu Asp Ile Pro Pro Arg Pro Glu Asn Leu
                        135
                                            140
Gln Asn Gln Asn Thr Val Gln Leu Ala Ile Lys Ser Arg Ile Lys Leu
                    150
                                        155
Phe Tyr Arg Pro Ala Ala Leu Lys Gly Thr Leu Asp Asp Ala Val Ala
                                    170
Lys Leu Thr Leu Ala Ala Glu Gly Asp Arg Phe Arg Ile Thr Asn Asn
                                185
                                                    190
Ser Pro Phe His Ile Thr Val Ala Asn Ile Ser Leu Gly Lys Thr Lys
                            200
                                                205
Leu Leu Gln Glu Ser Pro Met Val Ser Pro Phe Gly Gln Leu Thr Val
                        215
                                            220
Ala Ala Lys Asn Thr Val Lys Arg Gly Gln Thr Phe Gln Leu Met Tyr
                   230
                                       235
Val Asp Asp Leu Gly Ala Tyr Lys Thr Arg Thr Phe Thr Ser Gln
                245
                                    250
<210> 6045
<211> 836
<212> PRT
<213> Enterobacter cloacae
<400> 6045
Ser Glu Arg Leu Thr Met Lys Met Lys Gln Asn Arg Leu Cys Leu Leu
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Ala Val Cys Thr Leu Leu Ser His Lys Ser Gly Ala Val Ser Phe 25 Asp Pro Ser Leu Leu Ala Gly Ala Ser Gly Glu Ser Asp Leu Ser Arg 40 Phe Ser Glu Asn Asn Ala Met Pro Ala Gly Ser Gln Glu Met Asp Ile Tyr Val Asn Gly Ser Trp Lys Gly Arg Tyr Thr Val Ile Tyr Gly Glu Gln Arg Asp Asp Ile Arg Ile Ala Trp Lys Asp Ala Arg Ser Leu Gly 85 90 Ile Asn Thr Thr Ser Val Pro Ala Pro Ala Ile Ala His Gly Gln Val 100 105 Gln Leu Arg Asp Leu Val Gln Gly Gly Glu Val Lys Thr Asp Thr Ser 120 115 Thr Leu Ser Leu Ala Leu Thr Val Pro Gln Ala Ala Val Leu Arg Thr 135 140 Glu Glu Gly Tyr Ile Ala Arg Gln Phe Trp Asp Glu Gly Ile Pro Ala 150 155 Leu Met Leu Ser Trp Asn Thr Trp Tyr Asn Thr Arg Ala Lys Gly 165 170 175 Ala Ala Lys Asp Thr Asn Asp Asp Phe Tyr Ala Gly Leu Asp Ser Gly 180 185 Ala Asn Leu Phe Gly Trp Gln Phe Arg Asp Ser Ser Ala Trp Arg Lys 200 Thr Ala Ser Gly Glu Ser Ser Trp Gln Asn Asn Thr Arg Tyr Leu Arg 215 220 Arg Pro Leu Ala Ser Leu Lys Ser Asn Leu Thr Leu Gly Asp Phe Tyr 230 235 Ile Pro Gly Asp Leu Phe Asp Ser Leu Arg Val Arg Gly Val Ser Leu 250 Ala Ser Asp Met Lys Met Arg Pro Asn Ser Gln Gln Gly Phe Ser Pro 265 Val Val His Gly Val Ala Arg Thr Asn Ala Leu Val Lys Val Ile Gln 280 Asn Gly Asn Val Ile Tyr Gln Glu Asn Val Pro Pro Gly Gln Phe Thr 295 • Leu Asp Ser Ile Gln Pro Thr Gly Ser Ala Gly Asp Leu Leu Val Val 310 315 Val Arg Glu Ala Asp Gly Ser Gln Gln Ser Phe Thr Val Pro Phe Ser 330 Ala Val Pro Gly Met Leu Lys Glu Gly Val Ser Gln Tyr Ser Val Val 345 Ala Gly Lys Val His Gln Asn Thr Leu Asp Ala Glu Pro Ala Phe Met 355 360 Gln Ala Thr Leu Arg Tyr Gly Phe Asn Asn Leu Ile Thr Gly Tyr Thr 375 380 Gly Thr Ile Ile Ser Asp Asn Tyr Gln Ala Gly Leu Val Gly Thr Gly 390 395 Trp Asn Leu Pro Phe Gly Ala Val Ser Phe Asp Val Thr His Ala Lys 405 410 Thr Thr Leu Gln Asp Arg Thr Ser Ser Gly Gln Ser Tyr Arg Val Ser 425 430 420 Tyr Ser Lys Phe Ile Asp Thr Thr Ala Thr Asn Phe Thr Leu Ala Ala 440 Tyr Arg Tyr Ser Thr Lys Gly Tyr Tyr Ser Phe Ser Asp Ala Leu Tyr 455 460 Ser Arg Glu Gly Tyr Gln Arg Leu Arg Ala Gln Tyr Asp Asp Tyr Glu 470 475 Asp Arg Phe Gly Val Ala Pro Asp Met Ser Leu Ser Thr Trp Asp Ala 490 Met Arg Ala Ala Gln Pro Lys Asn Thr Phe Thr Leu Asn Leu Asn Gln

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500
                                505
Arg Leu Leu Asn Asn Trp Gly Thr Val Phe Val Ser Gly Thr Gln Arg
                            520
                                                525
Asp Tyr Trp Asn Ser Gln Gln Thr Thr Arg Glu Tyr Gln Met Gly Tyr
                        535
                                            540
Ser Asn Ala Ile Gly Arg Ala Ser Tyr Thr Leu Ser Ala Ser Arg Val
                    550
                                        555
Arg Asn Arg Asp Ser Glu Glu Glu Thr Arg Leu Tyr Leu Ser Leu Ser
                565
                                    570
Leu Pro Phe Ser Leu Phe Asp Asn Ala Trp Ile Thr Ser Ser Leu
            580
                                585
Thr Ala Ser Asp Ser His Tyr Glu Gln Ser Asn Ile Ser Met Ser Gly
                            600
        595
                                                 605
Asn Ala Leu Ala Ser Asn Arg Leu Ser Tyr Thr Leu Ser Gly Ser Asn
                        615
                                             620
Ala Arg Gly Gly Lys Asn Ala Ala Ser Val Asn Ala Ala Tyr Arg Ser
                    630
                                       . 635
Asn Phe Ala Thr Leu Gly Gly Ser Tyr Ser Glu Ser Ser Asp Tyr Arg
                645
                                    650
Gln Thr Gly Leu Ser Gly Arg Gly Ser Leu Val Ala Tyr Pro Trp His
                                665
Val Leu Ala Ser Asn Glu Thr Gly Thr Thr Met Thr Ile Val Asp Ala
                            680
Pro Lys Ala Glu Gly Leu Met Val Asn Gly Asp Glu Ser Ile Met Thr
                        695
                                            700
Asn Arg Asp Gly Val Ala Leu Val His Asn Ala Thr Arg Ile Cys Lys
                    710
                                        715
Asn Ala Ile Thr Leu Thr Glu Thr Glu Asn Ser Ala Gly Ala Glu Val
                                    730
Ile Gly Asn Met Ala Asn Val Ala Pro Tyr Asp Gly Ala Val Ser Tyr
                                745
Ile Arg Phe Glu Thr Asp Lys Arg Gln Ser Trp Val Leu His Ala Thr
                            760
Arg Ala Asp Gly Lys Pro Leu Pro Phe Gly Thr Glu Val Leu Asp Glu
                        775
His Gly Glu Ser Val Gly Tyr Val Gly Gln Ala Ser Val Leu Tyr Ile
                    790
                                        795
Arg Ala Glu Arg Pro Pro Arg Ala Leu Asn Val His Leu Arg Gly Gly
                805
                                    810
Lys Cys Glu Ile Ser Ser Pro Ala Trp Gly Leu Asn Ser Pro Ser Ser
Val Cys His
        835
<210> 6046
<211> 360
<212> PRT
<213> Enterobacter cloacae
<400> 6046
Leu Arg Ile Ile Lys Met Leu Arg Ser Phe Met Phe Leu Leu Thr
                                    10
Ser Val Ser Gly Met Ser Tyr Ala Thr Cys Ser Gly Ser Ser Ile Val
                                25
Tyr Gly Thr Pro Ile Thr Ile Asp Leu Ser Asp Lys Leu Ser Pro Ala
                            40
Thr Pro Thr Trp Thr Gly Ser Phe Thr Thr Gln Tyr Ser Gly Ser Phe
Asn Cys Thr Thr Gly Asn Ser Glu Phe Ser Tyr Thr Pro Ile Leu Ser
                                        75
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Thr Asp Ser Lys Tyr Ala Thr Ile Leu Gly Phe Ser Asn Asn Lys Tyr

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90
Met Val Arg Ala Glu Ile Thr Asn Pro Pro Ala Asn Lys Thr Leu Ser
                                105
Ala Ser Gly Ser His Thr Ala Ser Glu Leu Asn Thr Pro Phe Thr Val
                            120
                                                125
Arg Phe Thr Leu Val Asn Gln Ser Gly Thr Thr Leu Thr Gly Asp Thr
                        135
                                            140
Ala Asn Met Ser Asp Val Leu Phe Val Ser Asp Met Ser Gly Leu Ser
                    150
                                        155
Ile Trp Glu Ile Ile Thr Trp Pro Ile Asn Gln Val Ile Lys Ile Ala
                165
                                    170
Gln Trp Leu Phe Ser Gly Phe Lys Trp Pro Tyr Asp Asn Arg Asp Met
                                185
            180
Phe Gly Gln Pro Met Ile Ile Lys Tyr Ala Pro Lys Leu Thr Thr Cys
                            200
                                                 205
Ser Phe Asp Asn Ala Gly Leu Thr Val Ala Leu Pro Thr Leu Gly Ile
                        215
                                             220
Pro Gln Leu Ser Ala Ser Ser Gln Pro Gly Leu Thr Pro Phe Ser Leu
                   230
                                         235
Asn Met Ser Cys Gln Asn Val Gly Val Asn Gly Asn Ser Asp Arg Ala
                245
                                    250
Ile Glu Met Phe Leu Ser Ser Thr Gln Leu Leu Ser Thr Asp Ser Ser
                                                     270
                                265
Val Leu Ile Asp Ser Ser Ser Ser Ala Ala Gln Gly Val Gly Leu Arg
                            280
Leu Ile Lys Arg Asp Ala Pro Gln Thr Pro Val Thr Phe Ser Asn Ser
                        295
Thr Thr Ser Arg Gly Asn Ala Thr Met Ile Phe Ser Val Ala Ala Gly
                    310
                                         315
Ala Ala Leu Asp Glu His Phe Thr Leu Pro Met Ala Ala Tyr Tyr Tyr
                325
                                    330
Val Trp Ala Pro Ala Gln Val Ser Gln Gly Lys Ile Asn Thr Ser Ala
                                345
            340
Thr Leu Asn Ile Ile Tyr Pro
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<210> 6047

<211> 166

<212> PRT

<213> Enterobacter cloacae

<400> 6047

Asp Leu Ser Phe Asn Glu Leu Asn Asn Leu Leu Asn His Lys Gly Met 10 Glu Arg Gly Gly Pro His Arg Phe Thr Ser Leu Cys Lys Thr Leu Asn 25 20 Val Arg Arg Val Leu Leu Cys Pro Glu Leu His Tyr Gly Leu Leu Lys 40 4.5 Lys Val Leu Glu Met Lys Phe Glu Leu Thr Ile Ser Gln Gln Asp Glu 55 60 Leu Thr Glu Leu Lys Lys Glu Leu Pro Ala Leu Leu Met Ala Asp Gly 70 7.5 Gln Lys Pro Ser Ile Tyr Ser Trp Leu Arg Arg Val Met Arg Ser Gly 90 Ser Arg Ala Arg Ser Ile Leu Ser Ala Arg Glu Trp Glu Val Leu His 105 Leu Ile Val Glu Gly Phe Ser Thr Thr Glu Ile Ala Arg His Arg Asn 120 Arg Ser Val Ser Thr Ile Ala Thr Gln Lys His Asn Ala Met Lys Lys 135 Leu Asn Leu Ser Asn His Ser Glu Leu Ile Lys Tyr Val Gln Thr Val

155

160

150

145

Gly Lys Met Glu Glu 165 <210> 6048 <211> 515 <212> PRT <213> Enterobacter cloacae <400> 6048 Asn Cys Val Ala Ile Thr Phe Pro Pro Gly Trp Asn Cys Ala Gly Lys Cys Ser Phe Arg Arg Ala Ser Arg Arg Ser Thr Lys Lys Arg Val 25 Val Pro Ala Gly Lys Val Phe Ala Asn Pro Arg Asn Ala Ala Gly 40 Ser Leu Arg Gln Leu Asp Pro Arg Ile Thr Ala Lys Arg Pro Leu Thr 5.5 Phe Phe Cys Tyr Gly Val Gly Ile Leu Glu Gly Gly Asp Leu Pro Asp 70 75 Thr His Leu Gly Arg Leu Met Gln Phe Lys Glu Trp Gly Leu Pro Val 85 90 Ser Asn Arg Val Gln Leu Cys Asp Ser Pro Glu Ala Val Leu Ala Phe 105 100 Tyr His Lys Val Glu Glu Asp Arg Pro Thr Leu Gly Phe Asp Ile Asp 115 120 125 Gly Val Val Ile Lys Val Asn Ser Leu Ala Leu Gln Glu Gln Leu Gly 135 140 Phe Val Ala Arg Ala Pro Arg Trp Ala Val Ala Phe Lys Phe Pro Ala 150 155 Gln Glu Gln Met Thr Phe Val Arg Asp Val Glu Phe Gln Val Gly Arg 165 170 Thr Gly Ala Ile Thr Pro Val Ala Arg Leu Glu Pro Val Gln Val Ala 180 185 Gly Val Leu Val Ser Asn Ala Thr Leu His Asn Ala Asp Glu Ile Ala 200 Arg Leu Gly Leu Arg Ile Gly Asp Lys Val Val Ile Arg Arg Ala Gly 215 220 Asp Val Ile Pro Gln Val Val Asn Val Val Glu Ser Glu Arg Pro Ala 230 235 Asp Thr Arg Ala Ile Glu Phe Pro Ala His Cys Pro Val Cys Gly Ser 250 245 Asp Val Glu Arg Val Glu Gly Glu Ala Val Thr Arg Cys Thr Gly Gly 265 Leu Ile Cys Gly Ala Gln Arg Lys Glu Ser Leu Lys His Phe Val Ser 280 Arg Arg Ala Met Asp Val Asp Gly Met Gly Asp Lys Ile Ile Asp Gln 295 300 Leu Val Glu Lys Glu Tyr Val His Thr Pro Ala Asp Leu Phe Thr Leu 310 315 Thr Ala Gly Lys Leu Thr Gly Leu Asp Arg Met Gly Pro Lys Ser Ala 325 330 Gln Asn Ile Val Asn Ala Leu Glu Ala Ala Lys Asn Thr Thr Phe Ala 345 Arg Phe Leu Tyr Ala Leu Gly Ile Arg Glu Val Gly Glu Ala Thr Ala 360 Ala Gly Leu Ala Ala Tyr Phe Gly Thr Leu Asp Ala Leu Glu Lys Ala 375 Thr Ile Asp Glu Leu Gln Lys Val Pro Asp Val Gly Ile Val Val Ala 395 390

Thr His Val Phe Asn Phe Phe Ala Glu Glu Ser Asn Arg Glu Val Ile

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405
                                    410
Gly Lys Leu Leu Glu Gln Gly Ile His Trp Pro Ala Pro Val Val Val
                                425
Asn Ala Glu Glu Ile Asp Ser Pro Phe Ala Gly Lys Thr Val Val Leu
                            440
Thr Gly Ser Leu Ser Gln Leu Ser Arg Asp Ala Lys Ala Arg Leu
                        455
Val Ala Leu Gly Ala Lys Val Ala Gly Ser Val Ser Lys Lys Thr Asp
                                        475
                    470
Leu Val Ile Ala Gly Glu Ala Ala Gly Ser Lys Leu Ala Lys Ala Gln
                485
                                    490
Glu Leu Gly Ile Glu Ile Ile Asp Glu Ala Glu Met Met Arg Leu Leu
                                505
            500
                                                    510
Gly Glu
        515
<210> 6049
<211> 201
<212> PRT
<213> Enterobacter cloacae
<400> 6049
Trp Cys Asp Met Asp Ser Ile Glu Gln Gln Leu Thr Glu Leu Arg Thr
Thr Leu Arg His His Glu Tyr Leu Tyr His Val Met Asp Ala Pro Glu
                                25
Val Pro Asp Ala Glu Tyr Asp Arg Leu Met Arg Glu Leu Arg Glu Leu
                            40
Glu Ala Gln His Pro Glu Leu Ile Thr Pro Asp Ser Pro Thr Gln Arg
Val Gly Ala Glu Pro Leu Gly Ala Phe Ser Gln Val Arg His Glu Val
Pro Met Leu Ser Leu Asp Asn Val Phe Asp Glu Glu Ser Phe Leu Ala
                                    90
                8.5
Phe Asn Lys Arg Val Gln Asp Arg Leu Lys Ser Val Asp Asn Leu Ser
                                105
                                                    110
Trp Cys Cys Glu Leu Lys Leu Asp Gly Leu Ala Val Ser Ile Leu Tyr
                            120
                                                125
       115
Glu Asn Gly Val Met Val Arg Ala Ala Thr Arg Gly Asp Gly Thr Thr
                        135
                                            140
Gly Glu Asp Ile Thr Thr Asn Val Arg Thr Ile Arg Ala Ile Pro Leu
                                        155
                    150
Lys Leu Arg Gly Asp Asn Ile Pro Ala Arg Leu Glu Leu Arg Gly Glu
                                   170
               165
Val Phe Leu Pro Gln Ala Gly Phe Glu Lys Ile Asn Glu Glu Ala Arg
           180
                               185
Arg Thr Gly Gly Glu Ser Val Cys
       195
                            200
<210> 6050
<211> 317
<212> PRT
<213> Enterobacter cloacae
<400> 6050
Ile Lys Gln Met Asn Tyr Ser Leu Arg Gln Leu Arg Val Phe Val Thr
                                    10
Val Ala Gln Ala Arg Ser Phe Ser Arg Ala Gly Glu Ile Ile Gly Leu
                                25
Ser Gln Ser Ala Val Ser His Ser Val Lys Glu Leu Glu Thr Gln Thr
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Gly Val Lys Leu Leu Asp Arg Thr Thr Arg Glu Val Val Leu Thr Glu
                        55
                                            60
Ala Gly Gln Gln Leu Ala Met Arg Leu Glu Arg Leu Leu Asp Glu Leu
                   70
                                        75
Asn Ser Thr Leu Arg Asp Val Gly Arg Leu Gly Gln Gln Leu Ser Gly
                                    90
                85
Thr Val Arg Val Ala Ala Ser Gln Thr Ile Ser Ala His Leu Ile Pro
                                105
Gln Cys Ile Ala Glu Ser Asn His Arg Tyr Pro Asp Ile Asp Phe Val
                            120
Leu His Asp Arg Pro Gln Gln Trp Val Leu Glu Ser Ile Arg Gln Gly
                        135
                                            140
Asp Val Asp Phe Gly Ile Val Ile Asp Pro Gly Ala Val Ser Asp Leu
                                        155
                    150
Glu Cys Glu Val Val Leu Ser Glu Pro Phe Leu Leu Cys Arg Asp
                165
                                    170
Asp Asp Pro Leu Ala Ser Leu Pro Gln Val Ala Trp Gln Ala Leu Gln
            180
                                185
Gly Ala Asn Leu Val Leu Gln Asp Tyr Ala Ser Gly Ser Arg Pro Leu
                            200
Ile Asp Ala Ala Leu Thr Ala Gln Gly Val Lys Ala Thr Ile Val Gln
                        215
                                            220
Glu Ile Gly His Pro Ala Thr Leu Phe Pro Met Val Glu Ala Gly Ile
                    230
                                        235
Gly Ile Ser Val Leu Pro Ala Leu Ala Leu Pro Leu Pro Gln Gly Ser
                245
                                    250
Arg Leu Thr Val Lys Arg Phe Val Pro Cys Val Glu Arg Gln Leu Met
                                265
Leu Val Arg Arg Lys Asn Arg Ser Leu Ser Gly Ala Ala His Ala Cys
                            280
Trp Asp Val Val Arg Met Gln Ala Glu Arg Leu Met Glu Ala Arg Thr
                        295
Arg Asp Pro Leu Phe Asn Glu Thr Asn Asn Gln Thr
                    310
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<210> 6051

<211> 340

<212> PRT

<213> Enterobacter cloacae

<400> 6051

Arg His Leu Phe Ser Gly Val Ile Met Lys Leu Phe Arg Ile Leu Asp 10 Pro Phe Thr Leu Thr Leu Ile Gly Val Val Leu Leu Ala Ser Phe Phe 25 Pro Ala Arg Gly Ser Phe Val Pro Val Ile Glu Gly Leu Thr Thr Ala 40 Ala Ile Ala Leu Leu Phe Phe Met His Gly Ala Lys Leu Ser Arg Glu 55 Ala Ile Ile Ala Gly Gly Ser His Trp Arg Leu His Leu Trp Val Met 75 70 Cys Ser Thr Phe Ile Leu Phe Pro Val Leu Gly Val Leu Phe Ala Trp 85 ′ 90 Trp Ala Pro Val Asn Val Asp Pro Ala Leu Tyr Thr Gly Phe Leu Tyr 105 Leu Cys Ile Leu Pro Ala Thr Val Gln Ser Ala Ile Ala Phe Thr Ser 120 Leu Ala Gly Gly Asn Val Ala Ala Ala Val Cys Ser Ala Ser Ala Ser 135 Ser Leu Leu Gly Ile Phe Val Ser Pro Leu Leu Val Gly Leu Leu Met Asn Met His Gly Ala Glu Gly Asn Leu Glu Gln Val Gly Lys Ile Cys

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165
                                    170
Leu Gln Leu Leu Pro Phe Val Leu Gly His Leu Ser Arg Pro Trp
                                185
Ile Gly Glu Phe Val Ala Lys His Lys Lys Trp Ile Gly Lys Thr Asp
                            200
                                                205
Gln Ser Ser Ile Leu Leu Val Val Tyr Thr Ala Phe Ser Glu Ala Val
                        215
Val Asn Gly Ile Trp His Arg Val Gly Ala Gly Ser Leu Leu Phe Ile
                    230
                                        235
Val Val Val Ser Ile Val Leu Leu Ala Ile Val Ile Ala Val Asn Val
                                    250
                245
Phe Val Ala Arg Lys Cys Gly Phe Asn Lys Ala Asp Glu Ile Thr Ile
            260
                                265
Val Phe Cys Gly Ser Lys Lys Ser Leu Ala Asn Gly Ile Pro Met Ala
        275
                            280
                                                285
Asn Ile Leu Phe Pro Thr Ser Val Ile Gly Met Met Val Leu Pro Leu
                        295
                                            300
Met Ile Phe His Gln Ile Gln Leu Met Val Cys Ala Val Leu Ala Arg
                    310
                                        315
Arg Tyr Lys Ala Gln Thr Glu Lys Leu Ala Gln Glu Glu Thr His Ala
                325
                                    330
Ala Lys Val
            340
<210> 6052
<211> 529
<212> PRT
<213> Enterobacter cloacae
<400> 6052
Leu Ser Ser Gly Ile Ser Gly Ile Thr Thr Ser Met Leu Thr Arg Tyr
                                    10
Phe Ser Ser Asn Arg Lys Ile Leu Phe Ile Ser Phe Leu Thr Gly Leu
                                25
Phe Thr Ala Leu Leu Gly Ala Leu Gln Phe Tyr Trp Ser Tyr His
Lys Arg Asp Val Arg Phe Asp Thr Leu Ile Thr Asp Leu Ser Val Tyr
Met Glu Ser Tyr Phe Asp Glu Leu Lys Met Ser Ile Asp Thr Leu Gln
                    70
                                        75
Pro Leu Thr Leu Asn Ser Cys Glu Glu Val Ser Ala Ala Leu Thr Ser
Arg Ala Ala Phe Ser Ile Asn Val Arg Ala Phe Leu Leu Val Arg Asp
            100
                                105
Lys Gln Ala Phe Cys Ser Ser Ala Thr Gly Pro Met Asn Thr Pro Met
                            120
                                                125
Glu Lys Leu Ile Pro Gln Leu His Ile Ser Lys Pro Val Asp Ile Ala
                        135
                                            140
Leu Leu Pro Gly Thr Pro Met Leu Pro Asp Lys Pro Ala Ile Ala Ile
                    150
                                        155
Trp Tyr Arg Asn Pro Leu Val Lys Asp Gly Gly Val Phe Thr Ser Val
               165
                                    170
Asn Leu Asn Leu Ser Pro Tyr Leu Leu Tyr Thr Ser Arg Gln Asp Glu
           180
                               185
                                                    190
Phe Ala Gly Ile Ser Ile Val Ile Gly Asp Ser Ala Leu Ser Thr Gln
                            200
Ser Gly Met Leu Ile Gln Ala Arg Asp Leu Pro Asp Val Pro Ala Arg
                       215
                                            220
Ser Ala Thr Leu Lys Asn Ile Pro Leu Thr Val Asn Val Tyr Ala Gln
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Ala Trp Thr Thr Asp Glu Leu Leu Tyr Ala Val Phe Phe Gly Leu Val 245 250 Cys Gly Ile Ala Ala Gly Leu Leu Asn Phe Tyr Ile Leu Thr Ile Arg 265 Leu Asn Pro Gly Lys Glu Ile Leu Thr Ala Ile Lys His Asp Gln Phe 280 Tyr Val Val Tyr Gln Pro Val Val Asp Ala Gln Ser Leu Arg Met Thr 295 300 Gly Leu Glu Val Leu Met Arg Trp Lys His Pro Val Met Gly Glu Ile 310 315 Pro Pro Asp Ala Phe Ile Asn Phe Ala Glu Ala Gln Lys Leu Ile Val 325 330 Pro Leu Thr Leu His Leu Phe Asp Leu Ile Ile Arg Asp Ala Pro Val 340 345 Leu Gln Thr Val Leu Pro Pro Gly Ala Lys Phe Gly Ile Asn Ile Ala 360 Pro Gly His Leu His Ala Glu Ser Phe Lys Glu Asp Met Arg Ala Phe 375 380 Leu Ala Ala Leu Pro Pro Asp His Phe Gln Ile Val Leu Glu Ile Thr 390 395 Glu Arg Asp Met Ile Asn His Arg Glu Ala Asn Gln Leu Phe Glu Trp 410 Val His Asn Glu Gly Phe Glu Ile Thr Ile Asp Asp Phe Gly Thr Gly 420 425 430 His Ser Ala Leu Ile Tyr Leu Glu Arg Phe Thr Met Asp Tyr Leu Lys 440 445 Ile Asp Arg Gly Phe Val Asn Ala Ile Gly Thr Glu Thr Val Thr Ser 455 460 Pro Val Leu Asp Ala Val Leu Thr Leu Ala Glu Arg Leu Asn Met Ile 470 475 Thr Val Ala Glu Gly Val Glu Thr Pro Glu Gln Ala Ala Trp Leu Arg 485 490 Glu His Gly Val Asn Tyr Leu Gln Gly Tyr Trp Ile Gly Arg Pro Met 505 510 Pro Leu Glu Gln Phe Arg Thr Trp Gln Pro Asp Ile Thr Leu Gly Glu 515 520

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<210> 6053
<211> 627
<212> PRT
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<213> Enterobacter cloacae

<400> 6053

Phe His Asn His Gly Ala Val Pro Tyr Tyr Ser Val Gln Pro Ser Leu 10 Ser Val Asn Lys Gly Ile Arg Arg Thr Met Ile Met Arg Val Val Leu 25 Thr Leu Leu Ala Leu Val Ser Leu Ser Ser Gln Ala Gln Thr Ile Lys Glu Ser Thr Ala Phe Ala Val Ile Gly Glu Pro Lys Tyr Ala Val Asn Phe Asn His Tyr Asp Tyr Val Asn Pro Ala Ala Pro Lys Gly Gly Asn 70 75 Val Thr Leu Ser Ala Thr Gly Thr Phe Asp Asn Phe Asn Arg Phe Ala 85 90 Leu Arg Gly Val Ala Ala Ala Arg Thr Glu Ser Leu Tyr Asp Thr Leu 100 105 Phe Val Thr Ser Asp Asp Glu Pro Gly Ser Tyr Tyr Pro Leu Val Ala 120 125

Glu Asn Val Arg Tyr Ala Glu Asp Phe Ser Trp Val Glu Ile Ala Ile 135 140 Asn Pro Arg Ala Arg Phe His Asp Gly Thr Pro Val Ser Ala Arg Asp 150 155 Val Ala Phe Thr Phe His Lys Phe Met Thr Glu Gly Val Pro Gln Phe 165 170 Arg Leu Val Tyr Lys Gly Thr Thr Val Lys Ala Ile Ala Pro Leu Thr 180 185 Val Arg Ile Glu Leu Pro Glu Ala Asn Lys Glu Asn Met Leu Ser Leu 200 Phe Ser Leu Pro Val Met Pro Glu Ser Phe Trp Lys Asn His Lys Leu 215 220 Ser Asp Pro Leu Ser Thr Pro Pro Leu Ala Gly Gly Pro Tyr Arg Ile 230 235 Thr Asp Trp Arg Met Gly Gln Tyr Val Ile Tyr Ser Arg Val Lys Asp 245 250 Tyr Trp Ala Ala Thr Leu Pro Val Asn Arg Gly Arg Trp Asn Phe Asp 265 Thr Ile Arg Tyr Asp Tyr Tyr Leu Asp Asp Asn Val Ala Phe Glu Ala 280 Phe Lys Ala Gly Ala Phe Asp Leu Arg Val Glu Asn Ser Ala Lys Asn 295 Trp Ala Thr Arg Tyr Ile Gly Lys Asn Phe Ala Lys Gly Tyr Ile Val 310 315 Lys Asp Glu His Lys Asn Glu Ser Ala Gln Asp Thr Arg Trp Leu Ala 325 330 Phe Asn Ile Gln Arg Pro Val Phe Ser Asp Arg Arg Val Arg Glu Ala 345 Ile Thr Leu Ala Phe Asp Phe Glu Trp Met Asn Lys Ala Leu Phe Tyr 360 Gly Ala Tyr Ser Arg Ala Asn Ser Tyr Phe Gln Asn Thr Glu Tyr Ala 375 380 Ala Arg Asp Tyr Pro His Ala Asp Glu Leu Val Leu Leu Ala Pro Leu 395 390 Lys Ala Glu Leu Pro Pro Glu Val Phe Thr Arg Ile Phe Glu Pro Pro 405 410 Lys Ser Asp Gly Asn Gly Phe Asp Arg Asp Asn Leu Leu Lys Ala Ser 420 425 430 Ser Leu Leu Asp Asp Ala Gly Trp Val Leu Lys Asn Arg Gln Arg Val 440 445 Asn Ala Gln Thr Gly Lys Pro Leu Ser Phe Glu Leu Leu Ile Ala Ser 455 460 Gly Ala Asn Asp Gln Trp Val Leu Pro Phe Lys Lys Asn Leu Ala Arg 470 475 Leu Gly Val Thr Met Asn Ile Arg Gln Val Asp Met Ala Gln Leu Thr 485 490 Asn Arg Lys Arg Ser Arg Asp Tyr Asp Met Met Gln Thr Leu Trp Ala 505 Ala Gln Pro Trp Pro Ser Ser Asp Leu Gln Ile Ser Trp Ala Ser Gly 520 Tyr Ile Asp Ser Ser Tyr Asn Ala Pro Gly Val Lys Ser Pro Val Ile 535 Asp Ala Leu Ile Ala Lys Ile Val Ala Ala Gln Gly Asp Lys Asn Lys 550 555 Leu Leu Pro Leu Gly Arg Ala Leu Asp Arg Val Leu Thr Trp Asn Tyr 565 570 Tyr Met Leu Pro Met Trp Tyr Met Gly Glu Asp Arg Val Ala Arg Trp 580 585 590 Asp Lys Phe Ser Leu Pro Ala Val Arg Pro Val Tyr Thr Leu Gly Phe 600 Asp Thr Trp Trp Tyr Asp Val Asn Lys Ala Val Lys Leu Pro Ala Glu

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610
                        615
                                            620
Arg Arg
625
<210> 6054
<211> 278
<212> PRT
<213> Enterobacter cloacae
<400> 6054
Gly Val Thr Met Gly Ala Tyr Leu Ile Arg Arg Leu Leu Val Ile
                                    10
Pro Thr Leu Trp Ala Ile Ile Thr Ile Asn Phe Phe Ile Val Gln Ile
            20
Ala Pro Gly Gly Pro Val Asp Gln Ala Ile Ala Ala Ile Glu Phe Gly
His Ala Gly Gly Met Pro Gly Gly Gly Glu Gly Met Gly Ala Ser
                        55
His Ala Arg Thr Gly Val Gly Asn Ile Ser Glu Ser His Tyr Arg Gly
                    70
                                        75
Gly Arg Gly Leu Asp Pro Glu Val Ile Ala Glu Ile Thr His Arg Tyr
Gly Phe Asp Lys Pro Leu His Glu Arg Tyr Cys Arg Met Leu Trp Asp
                                105
Tyr Val Arg Phe Asp Phe Gly Asp Ser Leu Phe Arg Ser Ala Ser Val
                            120
                                                125
Leu Thr Leu Ile Lys Gln Ser Leu Pro Val Ser Ile Thr Leu Gly Leu
                        135
                                            140
Trp Gly Thr Leu Ile Ile Tyr Leu Val Ser Ile Pro Leu Gly Ile Arg
                    150
                                        155
Lys Ala Val Tyr Asn Gly Ser Arg Phe Asp Ile Trp Ser Ser Thr Phe
                165
                                    170
Ile Ile Ile Gly Tyr Ala Ile Pro Ala Phe Leu Phe Ala Val Leu Leu
            180
                                185
                                                    190
Ile Val Phe Phe Ala Gly Gly Ser Tyr Phe Asp Leu Phe Pro Leu Arg
       195
                            200
                                                205
Gly Leu Val Ser Ala Asp Phe Ser Thr Leu Pro Trp Tyr Gln Lys Ile
                        215
                                            220
Thr Asp Tyr Phe Trp His Ile Thr Leu Pro Val Leu Ala Thr Val Ile
                    230
                                        235
Gly Gly Phe Ala Ala Leu Thr Met Leu Thr Lys Asn Ala Phe Leu Asp
                                    250
               245
Glu Ile Arg Lys Gln Tyr Val Val Thr Ala Arg Ala Lys Gly Val Gly
           260
                                265
Glu Lys Gln Ile Gly
       275
<210> 6055
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6055
His Ile Cys Gly Ser Ala Pro Leu Ser Lys Arg Arg Gly Pro Ser Gly
Leu Asn Leu Pro Arg Ser Thr Tyr Glu Gln Gln Glu Met Gly Lys Ser
                                25
Ile Ser Arg Thr Lys Leu Arg Thr Gly Asp Leu Val Leu Phe Arg Ala
                            40
Gly Ser Thr Gly Arg His Val Gly Ile Tyr Ile Gly Asn Asp Gln Phe
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Val His Ala Ser Thr Ser Ser Gly Val Thr Ile Ser Ser Met Asn Glu65707580Pro Tyr Trp Lys Lys Arg Tyr Asn Glu Ala Arg Arg Val Leu Ser Arg859095

<210> 6056 <211> 504 <212> PRT <213> Enterobacter cloacae

<400> 6056 Pro Gly Arg Thr Ser Thr Ile Met Glu Leu Asn Val Pro Gln Val Ala 10 Ala Cys Ile Ile Asn Ser Gln Asp Trp Asp Val Met Lys Lys Gly Leu 25 20 Ser Val Trp Pro Ala Leu Ser Thr Val Ala Tyr Gly Val Phe Ser Ala 40 Leu Phe Tyr Ala Phe Gly Val His Ala Asp Asp Asp Ile Gln Phe Asp 55 Ser Asn Phe Leu Arg Ile Ser His Pro Glu Asn Val Asp Leu Ser Ala 70 75 Tyr Met Asn Asn Ala Leu Pro Ala Gly Arg Tyr Arg Ala Asp Ile Tyr 90 85 Leu Asn Asp Lys Leu Val Met Ile Asp Asp Ile Arg Ile Ser Gly Lys 105 100 Asp Ala Arg Ser Gln Arg Ile Leu Leu Ser Gln Ala Thr Val Thr Gly 120 125 115 Leu Gln Leu Lys Lys Ser Arg Leu Cys Ala Thr Asn Ala Gly Gln Trp 135 140 Cys Asp Leu Gln Ala Val Leu Pro Glu Ser Arg Leu Lys Phe Asn Gly 150 155 Gly Arg Gln Arg Leu Asp Val Ser Ile Pro Gln Ala Met Leu Gln His 170 165 Val Ala Arg Gly Ser Val Asn Pro Val Leu Trp Asp Ala Gly Ile Pro 190 180 185 Ala Leu Met Leu Gly Tyr Asn Val Asn Gly Tyr Arg Ser Glu Asn Ser 200 205 Ser Gly Glu Tyr Asn Asn Leu Tyr Ala Ala Leu Asn Gly Gly Leu Asn 215 220 Ile Gly Ala Trp Tyr Phe Arg His Asn Gly Thr Leu Ser Trp Gln Gln 230 235 240 Gln Asn Gly Thr Gln Gln Lys Lys Tyr Thr Val Leu Asn Ser Tyr Val 250 Gln His Pro Leu Ala Gly Ile Glu Gly Asn Leu Ile Leu Gly Glu Ser 265 270 Asn Thr Ser Gly Gln Leu Phe Asp Ser Val Ser Phe Thr Gly Ala Ser 280 Val Ala Ser Asp Asp Arg Met Leu Pro Ala Ser Arg Arg Gly Tyr Ala 295 Pro Glu Ile Arg Gly Val Ala Gln Thr Asn Ala Lys Val Thr Ile Arg 310 315 Gln Asn Gly Lys Val Ile Tyr Glu Thr Thr Val Ser Pro Gly Ala Phe 330 325 Val Ile Asn Asp Leu Tyr Pro Ser Gly Tyr Gly Gly Asp Leu Asn Val 345 340 Thr Val Arg Glu Ala Asp Gly Ser Gln His Phe Phe Asp Val Pro Tyr 360 365 Ala Ser Val Ala Gln Leu Leu Arg Pro Gly Ala Ser Arg Tyr Ser Ala

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Thr Ala Gly Arg Leu Arg Gly Asp Tyr Leu Ser Glu Arg Pro Ala Phe
                    390
                                        395
Ser Glu Val Thr Tyr Gln Arg Gly Leu Thr Asn Ser Leu Thr Gly Ser
                405
                                     410
Gly Gly Ile Gln Ala Thr Ser Phe Tyr Gln Ala Met His Ala Gly Leu
            420
                                425
Ala Val Gly Thr Ala Val Gly Thr Val Ser Leu Asp Thr Thr Trp Ser
                            440
                                                 445
Gln Thr Gln Val Arg Glu Lys Thr Thr Arg Gly Arg Lys His Gln Val
                        455
Glu Leu Gln Gln Ile Tyr Ser Arg Lys Pro Asp Ala Val Phe Thr Gly
                    470
                                         475
His Leu Ala Ile Phe Asp Gly Glu Leu Ser Phe Ser Asp Gly Cys His
                485
                                     490
                                                         495
Pro Val Thr Ser Ala Ala Ala
            500
<210> 6057
<211> 200
<212> PRT
<213> Enterobacter cloacae
<400> 6057
Leu Ile Arg Arg Asn Asn Val Arg Lys Leu Met Lys Val Leu Val Cys
                                    10
Val Phe Thr Asp Asn Glu Phe Phe Phe Ser Ala Met Met Glu Leu Leu
                                25
Ser Ser His Thr Leu Leu Ala Glu Lys Tyr Thr Leu Cys Lys Ile Arg
                            40
                                                 4.5
Ser Asp Glu Ile Gly Ala Trp Met His Thr Ala Asp Asn Asn Met Met
                        55
Ile Met Ala Gly Pro Asp Met Glu Ser Leu Val Arg Phe Phe Cys Leu
                                        75
                    70
Glu Lys Arg Trp Asp Tyr Leu Thr Thr Arg Phe Ser Ala Ser Glu Met
                                    90
                85
Gln Asp Phe Leu Ala Gln Lys Ile Asn Arg Gln His Glu Val Lys Lys
                                105
                                                     110
Asn Leu Ile Arg Thr Arg Thr His Leu Lys Leu Ser Lys Gln Glu Leu
                            120
                                                 125
Asn Val Leu Ser Trp Phe Met His Gly Leu Ser Pro Tyr Ser Met Ser
                        135
                                             140
Arg Tyr Tyr Gly Leu Ser Val Lys Thr Ile Ser Thr Phe Lys Arg Arg
                    150
                                         155
Leu Met Asp Lys Leu Tyr Ile Lys Ser Asp Ala Glu Leu Phe Arg Val
                                    170
Gly Trp Thr Tyr Lys Met Tyr Gln Asn Ser Gly His Leu Arg Gly Arg
                                185
Asp Glu Asn Phe Arg Met Asp
<210> 6058
<211> 403
<212> PRT
<213> Enterobacter cloacae
<400> 6058
Glu Lys Lys Gln Pro Gly Gly Glu Ser Ile Arg Leu Ser Tyr Ser Lys
                                    10
Tyr Ile Pro Ala Ser Arg Thr Gln Phe Ser Leu Ala Thr Trp Arg Tyr
```

20 25 30
Ser Thr Gly Asn Tyr Leu Ser Leu Met Asp Ala Thr Leu Leu His Gln

```
40
Gln Arg Pro Asp Glu Thr Ala Asp Gly His Thr Gly Arg Thr Arg Asn
                        55
                                             60
Arg Val Thr Leu Thr Leu Asn Gln Gly Leu Pro Asp Lys Trp Gly Gln
                    70
                                        75
Leu Tyr Val Thr Gly Ile Leu Gln Asp Tyr Trp Gly Arg Lys Gly Tyr
                                    90
Asp Gln Gln Tyr Gln Ala Gly Tyr Thr Leu Thr Thr Gly Arg Val Asn
                                105
Trp Ser Leu Gly Val Asn Arg Ser Arg Ser Ser Gly Gly Glu Phe Gln
                            120
                                                 125
Asn Ile Trp Thr Leu Ser Phe Asn Met Pro Leu Gly Ser Ala Ser Thr
                        135
                                            140
Pro Leu Leu Thr Gly Gln Val Ser Arg Asp Gly Gln Gly His Phe Ser
                    150
                                        155
Glu Gln Val Ala Leu Ser Gly Ser Ala Gly Glu Arg Gln Gln Phe Ser
                                    170
                165
Trp Asn Ala Gly Ala Ser His Gln Tyr His Ser Gly Asp Ser Gly Gln
            180
                                185
Ile Gly Gly Ser Trp Thr Gly Pro Val Ser Thr Leu Thr Ala Asn Tyr
        195
                            200
Ala Gln Gly Lys Ala Trp Lys Ser Gly Ser Val Gly Val Ser Gly Thr
                        215
                                             220
Ala Val Ala His Ser Asp Gly Val Thr Phe Ser Pro Trp Thr Gly Asn
                    230
                                         235
Thr Phe Ala Leu Val Glu Ala Lys Gly Ala Glu Gly Ala Glu Ile Pro
                                     250
Gly Tyr Ala Gly Thr Arg Val Asp Gly Ser Gly Tyr Ala Leu Val Pro
                                265
Asn Leu Met Pro Tyr Gln Lys Asn Ala Ile Ser Ile Asp Thr Thr Ser
                            280
Val Glu Asp Asp Leu Asp Leu Asp Ser Thr Ser Gln Gln Val Ile Pro
                        295
                                             300
Tyr Ala Gly Ala Val Val Lys Val Lys Tyr Arg Ala Thr Ala Gly Val
                    310
                                         315
Pro Val Leu Ile Lys Val Thr Arg Ser Asn Gly Glu Gly Val Pro Phe
                325
                                     330
Ser Ala Arg Ala Thr Asp Ala Asn Lys Asn Ile Val Gly Tyr Val Gly
                                345
Gln Gly Ser Arg Leu Tyr Ala Arg Leu Ala Gln Gln Asn Gly Val Val
                            360
Glu Leu Arg Trp Ala Glu Gly Glu Gly Ala Arg Cys Lys Met Lys Tyr
                        375
Ser Leu Pro Ser Thr Ala Gly Lys Lys Leu Leu Ile Phe Asn Ala Ile
Cys Asn
```

```
<210> 6059
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<400> 6059

Glu Gly Glu Met Lys Ile Ser Gly Trp Ile Ser Val Ala Thr Phe Phe 1 5 . 10 . 15

Cys Leu Leu Ile Phe Ser Asn Ala Ala Met Ala Glu Thr Cys Ser Leu 20 . 25 . 30

Asp Ser Ala Ser Val Phe Lys Thr Ala Ser Asn Val Ser Met Pro Leu 35 . 40 . 45

Asn Ile Ser Ser Ile Ala Val Ser Asn Asp Ile Pro Asp Gly Thr Ile

<sup>&</sup>lt;211> 387

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
55
                                            60
Ile Tyr Gln Gln Lys Tyr Ile Pro Gly Tyr Ser Ser Ile Ser Val Asn
                    70
                                        75
Cys Asp Glu Ser Arg Ser Trp Tyr Tyr Val Met Ser Leu Thr Asn Thr
                                    90
               85
Pro Met Pro Leu Ser Ser Trp Thr Gly Thr Ile Ile Ser His Glu Ser
                               105
            100
Trp Val Ala Glu Tyr Ser Trp Asp Gly Tyr Ile Tyr Glu Thr Gly Ile
                           120
Pro Gly Ile Gly Ile Thr Ile Ser Met Met Ser Val Arg Arg Pro Ala
                        135
Pro Gly Ile Val Gly Thr Asn Cys Phe Ala Ser Lys Ser Cys Thr Asp
                    150
                                        155
Thr Gly Met Lys Ala Arg Ala Ile Ile Ala Leu Val Lys Thr Gly Pro
                165
                                    170
Ile Ser Ala Gly Val Ile Asn Ala Gly Asn Phe Pro Thr Met Lys Val
            180
                                185.
Ala Leu Gly Arg Glu Ala Thr Asn Ile Thr Leu Tyr Thr Leu Ser Phe
                            200
Thr Gly Ser Leu Asn Val Thr Leu Pro Thr Cys Thr Thr Pro Asp Phe
                        215
                                            220
Asn Val Ser Leu Gly Lys Trp Thr Thr Glu His Phe Thr Gly Lys Gly
                    230
                                        235
Ser Ser Thr Pro Trp Val Ala Ala Asn Ile Val Leu Ser Asn Cys Gly
                245
                                    250
Asp Phe Ile Gly Ser Asn Val Ser Gly Asp Met Ser Asp Gly Asn Tyr
            260
                                265
                                                    270
Trp Ser Asp Asn Gly Ser Ser Phe Ser Ser Thr Met Gln Trp Asn Thr
        275
                            280
Trp Ser Ile Thr Leu Ser Pro Val Ser Ser Val Leu Asp Ser Ala Ser
                        295
                                            300
Gly Ile Met Ser Val Asp Thr Ser Val Pro Ser Ala Ala Thr Gly Ile
                    310
                                        315
Gly Ile Gln Ile Ser Ser Gly Asp Thr Thr Ser Ala Asp Ser His Ile
                325
                                    330
Ile Asp Phe Gly Asn Ala Leu Thr Gly Thr Phe Asn Ser Asp Gly Ser
            340
                                345
Ser Ser Val Thr Ile Pro Leu Ser Ala Arg Tyr Ile Gln Thr Glu Asp
                            360
Ser Val Thr Ala Gly Met Ala Asn Gly Lys Leu Val Tyr Thr Ile Ser
                        375
Tyr Tyr
385
<210> 6060
<211> 405
<212> PRT
<213> Enterobacter cloacae
<400> 6060
Gln Val Met Ile Lys Lys Gly Leu Gly Phe Asn Ala Ile Thr Ala
                                    10
Leu Ile Met Leu Thr Thr Ser Asn Cys Val Ile Ala Glu Glu Tyr Gln
                                25
Leu Pro Ala Thr Ile Asn Asn Pro Val Val Met Pro Val Gly Ala Asp
                            40
Gly Phe Gln Asn Gly Ala Ala Lys Ala Ile Ile Pro Gly Gln Ala Gly
                        55
Ser Glu Gln Ser Gly Ala Gln Thr Asn Leu Ser Glu Ala Gly Asn Ala
```

Gln Gly Gln Lys Pro Thr Thr Asp Leu Pro Thr Val Gln Leu Ser Pro

```
85
                                    90
Ala Ser Asn Ala Ser Pro Ala Val Ser Ala Ile Thr Gly Ala Leu Ser
                               105
           100
Asn Asn Pro Ser Leu Pro Gly Phe Asp Ala Gln Thr Arg Ser Gly Ala
                            120
                                               125
Ile Asp Ser Tyr Gly Arg Pro Thr Gly Thr Ser Ser Gln Gln Asn Ala
                        135
                                            140
Thr Asn Ala Thr Ala Thr Ser Lys Ala Asp Glu Leu Tyr Val Glu Ala
                   150
                                       155
Arg Asn Arg Tyr Lys Glu Val Gln Arg Val Asn Val Pro Pro Gly Gly
               165
                                    170
Asn Val Val Leu Pro Val Ser Arg Gly Leu Gln Asn Arg Ile Ser Thr
                                185
Ser Phe Lys Asn Ala Ser Val Ser Thr Ser Thr Pro Ala Glu Glu Ala
                            200
Ser Ile Phe Val Asn Gly Gly Asp Val Phe Ile Ser Thr Asn Thr Asp
                        215
                                            220
Lys Pro Ile Gly Ile Met Leu Ser Glu Asp Gln Val Pro Glu Ser Thr
                    230
                                        235
Tyr Asn Leu Thr Leu Val Pro Leu Asp Val Pro Gly Ala Met Ile Ser
                245
                                    250
Val Thr Thr Ser Leu Ser Pro Ser Met Gln Ala Lys Arg Glu Thr Ser
            260
                                265
                                                    270
Leu Asp Lys Gln Asn Tyr Glu Glu Met Leu Ala Arg Ser Gln Ser Glu
       275
                            280
Glu Leu Ala Pro Thr Asp Pro Lys Gln Asp Asp His Lys Gln Arg Ile
                        295
                                            300
Ile Asp Leu Leu Thr Pro Val Ala Leu Gly Glu Val Pro Ser Gly Phe
                    310
                                        315
Ser Leu Gln Gln Asp Arg Leu Ser Arg Ile Pro Ala Pro Glu Gln Ser
                325
                                    330
Pro Cys Asn Phe Asn Met Tyr Ala Lys Leu Gly Gln Arg Leu Val Gly
                                345
Ser Arg Glu Leu Ile Asp Val Ile Leu Val Lys Asn Asp Lys Pro Tyr
                            360
                                                365
Gly Gln Ile Val Ala Asp Gln Gln Cys Met Ala Glu Gly Val Ile Ala
                        375
                                            380
Ser Ala Leu Phe Asp Lys Ala Tyr Leu Gln Pro Gly Glu Glu Thr Glu
                    390
                                        395
Leu Tyr Ile Val Arg
                405
```

<210> 6061

<211> 301

<212> PRT

<213> Enterobacter cloacae

<400> 6061

 Lys
 Ser
 Tyr
 His
 Arg
 Arg
 Val
 Lys
 Leu
 Met
 Ile
 Lys
 Asn
 Asn
 Glu
 Leu

 Ile
 His
 Pro
 Phe
 Asp
 Val
 Thr
 Ser
 Asn
 Glu
 Ser
 Gly
 Lys
 Thr
 Tyr
 Gln

 Leu
 Thr
 Pro
 Asn
 Ser
 Ser
 Lys
 Ser
 Val
 Gln
 Pro
 Val
 Ala
 Leu
 Arg

 Leu
 Ser
 Val
 Phe
 Thr
 Pro
 Val
 Glu
 Pro
 Val
 Ala
 Leu
 Arg

 So
 Ser
 Val
 Glu
 Leu
 Ser
 Arg
 Arg
 Arg

 Asn
 50
 Ser
 Asp
 Ala
 Ser
 Asp
 Glu
 Leu
 Ser
 Cys
 Met
 Glu
 Ile
 Ala
 Arg

 Asn
 Glu
 Glu
 Fragge
 Asp
 Asp
 Ala
 Ala
 Ala
 Ala
 Ala
 Ala
 Ala
 Ala
 Ala

```
100
                                105
                                                   110
Tyr Gly Phe Thr Ser Glu Lys Ile Ser Leu Thr Phe Asn Glu Phe Ala
                                              125
                           120
Lys Met Cys Gly Ile Ser Ser Thr Asn Ile Asn Lys Arg Thr Arg Ala
                       135
                                           140
Arg Phe Lys Glu Ser Leu Met Asn Leu Ala Ser Val Val Leu Ala Phe
                   150
                                       155
Ser Asp Ser Arg Ser Gly Arg Phe Thr Val Thr His Leu Val Gln Lys
                                   170
               165
Ala Met Ile Asp Pro Lys Ser Asp Thr Val Glu Leu Val Gly Asp Pro
                               185
           180
Ser Met Trp Glu Leu Tyr Arg Tyr Asp His Lys Thr Leu Leu Ser Leu
                            200
                                               205
Gln Val Leu Tyr Ile Leu Ala Lys Lys Glu Ala Ala Gln Ser Leu Tyr
                        215
                                            220
Ile Tyr Phe Glu Ala Met Pro Ala Gly Thr Leu Phe Val Asn Met Lys
                                        235
                    230
Arg Leu Arg Glu Arg Leu Leu Thr Thr Pro Ile Arg Thr Gln Asn
                                    250
                245
Gln Ile Ile Arg Lys Ala Met Arg Glu Leu Glu Ser Ile Gly Tyr Leu
                               265
Asp Tyr Gln Glu Val Lys Lys Gly Arg Asp Ile Gln Phe Gln Ile Phe
                            280
Lys Arg Ser Pro Lys Leu Ala Leu Ala Lys Gln Gly
<210> 6062
<211> 263
<212> PRT
<213> Enterobacter cloacae
<400> 6062
Met Lys Met Leu Ser Gly Ile Asn Ile Pro Phe Phe Lys Lys Ser Lys
                                    10
Lys Asp Glu Asn Gly Asp Leu Glu Gln Ser Tyr Val Lys Lys Asp Glu
                                25
           20
Ser Ala Lys Gly Arg Phe Leu Asp Ile Lys Lys Arg Phe Ser Pro Gln
        35
                            40
Ala Glu Ala Ser Gly Ala Gly Ile Thr Tyr Ser Ala Leu Ile Asn Arg
                        55
                                            60
Asp Thr Lys Leu Ile Arg Ile Asn Thr Val Ser Ile Ala Val Ile Gly
                                        75
                    70
Leu Leu Val Ala Lys Ile Leu Phe Phe Thr Asp Pro Val Thr Ile Val
                85
                                    90
Thr Pro Pro Asn Met Asn Glu Glu Ile Thr Val Val Gly Asn Lys Ala
            100
                                105
Ser Glu Ser Tyr Lys Thr Gln Trp Ala Leu Phe Phe Ser Thr Leu Leu
                            120
Gly Asn Ile Asn Pro Thr Asn Ile Ser Phe Val Thr Ala Tyr Val Leu
                        135
Asp Ala Leu Ser Pro Glu Leu Gln Ala Lys Thr Ser Glu Ser Leu Gln
                    150
                                        155
Glu Gln Ile Asn Ile Met Gln Ala Arg Gly Val Glu Gln Thr Phe Lys
                                    170
                165
Pro Asn Asp Ile Tyr Phe Asp Pro Lys Asn Asp Met Val Tyr Val Trp
                                185
                                                    190
           180
Gly Thr Lys Thr Thr Arg Leu Val Asn Val Pro Asp Lys Thr Glu Ser
                            200
       195
                                                205
Ser Lys Trp Thr Tyr Glu Trp Val Leu Gly Met Lys Asn Gly Arg Pro
                        215
                                            220
```

Arg Ile Ala Tyr Val Asn Gln Tyr Ser Gly Thr Pro Asn Ile Lys Lys

230 235 Ile Thr Ile Asn Gly Lys Glu Gln Leu Ala Thr Leu Asp Asn Pro Pro 245 250 Pro Ser Thr Gly Asn Lys 260 <210> 6063 <211> 214 <212> PRT <213> Enterobacter cloacae <400> 6063 Gln Glu Leu Arg Met Ile Asp Leu Tyr Tyr Ala Pro Thr Pro Asn Gly 10 His Lys Ile Thr Leu Phe Leu Glu Glu Ala Glu Val Asp Tyr Arg Ile 20 25 Ile Arg Val Asp Ile Ser Lys Gly Asp Gln Phe Arg Pro Val Phe Leu 40 Ala Ile Ser Pro Asn Asn Lys Ile Pro Ala Ile Ile Asp Asn Leu Pro 55 Ser Asp Gly Gly Lys Pro Leu Ser Leu Phe Glu Ser Gly Glu Ile Leu 70 75 Leu Tyr Leu Ala Glu Lys Thr Gly Lys Leu Leu Ser Gly Glu Leu Arg 85 90 Glu Arg His His Thr Leu Gln Trp Leu Phe Trp Gln Ser Ser Gly Leu 105 Gly Pro Met Leu Gly Gln Asn His His Phe Thr Ala Tyr Ala Pro Gln 120 125 Thr Ile Pro Tyr Ala Ile Glu Arg Tyr Gln Val Glu Thr Gln Arg Leu 135 140 Tyr Gly Val Leu Asn Arg Arg Leu Glu Lys Ser Pro Trp Leu Gly Gly 150 155 Glu His Tyr Ser Ile Ala Asp Ile Ala Cys Trp Pro Trp Ile Asn Thr 170 His Glu Arg His Arg Ile Asp Leu Ala Thr Tyr Pro Ala Val Asn Asn 185 Trp Phe Glu Arg Ile Arg Thr Arg Pro Ala Thr Glu Arg Ala Met Gln 200 195 Lys Ile His Gln Ile 210 <210> 6064 <211> 148 <212> PRT <213> Enterobacter cloacae <400> 6064 Ser Cys Ala Pro Leu Gly Ala Gly Val Leu Leu Met Tyr Asp Glu Val 10 Lys Ile Leu Thr Arg Arg Pro Val Met Ser Gln His Asp Ala Ile Ile Arg Ile Lys Asn Leu Arg Leu Arg Thr Phe Ile Gly Ile Lys Glu Glu Glu Ile Ala Asn Arg Gln Asp Ile Val Val Asn Val Val Ile His Tyr Pro Ala Asp Lys Ala Arg Ala Ser Glu Asp Ile Asn Asp Ala Leu 75 70 Asn Tyr Arg Thr Ile Thr Lys Ser Ile Ile Gln Tyr Val Glu Asn Asn Arg Phe Ala Leu Leu Glu Lys Leu Thr Gln Asp Val Leu Asp Ile Ala

Arg Glu His His Trp Val Thr Tyr Ala Glu Val Glu Ile Asp Lys Leu 120 His Ala Leu Arg Tyr Ala Asp Ser Val Ser Met Thr Leu Ser Trp Gln 135 Arg Gln Ala 145 <210> 6065 <211> 171 <212> PRT <213> Enterobacter cloacae <400> 6065 Tyr Gly Val Thr Met Ala Thr Ile Thr Thr Arg Leu Asn Leu Thr 1.0 Pro Phe Glu Pro Ser Asp Trp Ala Phe Phe Arg Ser Leu Arg Glu Asp 25 20 Pro Ala Ile Met Arg Tyr Met Ala Ala Ile Thr Pro Glu Lys Glu Thr 40 Arg Arg Val Phe Ala Ala Arg Leu Met Ala Glu His Val Phe Val Ile 55 Arg Leu His Asn Asp Val Lys Pro Leu Gly Asp Ile Gly Leu Gln Ile 75 70 Ser Ala Ala Asn Arg Glu Glu Ala Asp Ile Gly Tyr Thr Val Val Pro . 85 90 Ala Ala Gln Gly Lys Gly Ile Ala Ser Glu Ala Leu Arg Ala Val Cys 100 105 Glu Tyr Ala Phe Asn Gln Thr Gly Val Lys Ala Ile Asn Ala Tyr Val 120 Leu Ala Asp Asn Val Gly Ser Val Arg Val Leu Glu Lys Ala Gly Phe 135 Val Arg Thr Gln Val Leu Glu Lys Ala Tyr Glu Ile Asn Gly Val Arg 150 155 Tyr Asp Asp Trp Val Tyr Arg Leu Glu Cys 165 <210> 6066 <211> 309 <212> PRT <213> Enterobacter cloacae <400> 6066 Ala Gly Ser Ala Arg Arg Lys Pro Gly Gly Cys Met Lys Ile Leu Leu Thr Gly Gly Thr Gly Leu Ile Gly Arg His Leu Ile Pro Arg Leu Gln Ala Leu His His Asp Ile Thr Val Val Thr Arg Ser Pro Glu Lys Ala 40 Arg Gln Val Leu Gly Thr Gly Val Glu Ile Trp Lys Gly Leu Ala Glu 55 Arg Gln Asp Leu Asn Gly Phe Asp Ala Val Ile Asn Leu Ala Gly Glu 70 75 Pro Ile Ala Asp Lys Arg Trp Thr Glu Glu Gln Lys Gln Arg Leu Cys 85 90 Ser Ser Arg Trp Asn Met Thr Glu Arg Leu Val Glu Leu Ile Arg Asn 100 105 110 Ser Glu Thr Pro Pro Ser Val Leu Ile Ser Gly Ser Ala Thr Gly Tyr

120

135

Tyr Gly Asp Leu Gly Glu Val Val Thr Glu Glu Glu Pro Pro His

Asn Glu Phe Thr His Lys Leu Cys Ala Gln Trp Glu Arg Ile Ala Cys

```
150
                                       155
145
Gly Ala Gln Ser Asp Asn Thr Arg Val Cys Leu Leu Arg Thr Gly Val
                                   170
               165
Val Leu Ala Pro Lys Gly Gly Ile Leu Gly Lys Met Leu Pro Pro Phe
           180
                                185
Lys Met Gly Leu Gly Gly Pro Ile Gly Asn Gly Arg Gln Tyr Leu Ala
                           200
                                                205
Trp Ile His Ile Asp Asp Met Val Asn Gly Ile Leu Trp Leu Leu Asp
                        215
                                            220
Asn Asp Leu Arg Gly Pro Phe Asn Met Val Ser Pro Tyr Pro Val Arg
                    230
                                        235
Asn Glu Gln Phe Ala His Ala Leu Gly His Ala Leu His Arg Pro Ala
                245
                                    250
Val Leu Arg Val Pro Ala Thr Ala Ile Arg Leu Leu Met Gly Glu Ser
                                265
Ser Val Leu Val Leu Gly Gly Gln Arg Ala Leu Pro Lys Arg Leu Glu
                            280
                                                285
Ala Ala Gly Phe Thr Phe Arg Trp Tyr Asp Leu Glu Glu Ala Leu Gly
                        295
Asp Val Val Gln
305
<210> 6067
<211> 168
<212> PRT
<213> Enterobacter cloacae
<400> 6067
Arg Cys Gly Pro Met Arg Thr Phe Phe Ser Pro Tyr Val Met Ser Val
                                    10
Tyr Val Ala Leu Ala Glu Lys Gly Leu Thr Phe Thr Leu Lys Thr Val
            20
                                25
Asp Leu Asp Ser Gly Glu His Leu Lys Pro Gln Trp Gln Gly Tyr Ala
                            40
Leu Thr Arg Arg Val Pro Val Leu Glu Ile Asp Gly Phe Glu Leu Ser
                        55
                                             60
Glu Ser Ser Ala Ile Asp Glu Tyr Leu Glu Asp Arg Phe Ala Pro Pro
                    70
                                        75
Glu Trp Glu Arg Ile Tyr Pro His Asp Leu Gln Lys Arg Ala Arg Ala
                                    90
Arg Gln Ile Gln Ala Trp Leu Arg Ser Asp Leu Val Pro Ile Arg Thr
            100
                                105
Glu Arg Ser Thr Asp Val Val Phe Ala Gly Val Lys Lys Pro Ala Leu
                            120
Ser Glu Glu Gly Leu Ser Ser Ala Arg Lys Leu Ile Glu Thr Ala Ser
                        135
                                            140
Ser Leu Leu Ala Gln Gly Asn Pro Ser Phe His Arg Arg Arg His Glu
                    150
                                        155
Gly Lys Thr Tyr Lys Pro Gly Gly
                165
<210> 6068
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 6068
Glu Val Leu Lys Gly Val Ser Leu Glu Ala Asn Ala Gly Asp Val Ile
Ser Ile Ile Gly Ser Ser Gly Ser Gly Lys Ser Thr Phe Leu Arg Cys
```

```
Ile Asn Phe Leu Glu Lys Pro Ser Glu Gly Ser Ile Val Val Ser Gly
Gln Asn Ile Asn Met Val Arg Asp Lys Asp Gly Gln Leu Lys Val Ala
Asp Lys Asn Gln Leu Arg Leu Leu Arg Thr Arg Leu Thr Met Val Phe
Gln His Phe Asn Leu Trp Ser His Met Thr Val Leu Glu Asn Val Met
                                    90
                85
Glu Ala Pro Val Gln Val Leu Gly Leu Ser Lys Gln Glu Ala Arg Glu
           100
                                105
Arg Ala Val Lys Tyr Leu Ala Lys Val Gly Ile Asp Glu Arg Gln Gln
                           120
Ile Lys Tyr Pro Val His Leu Ser Gly Gly Gln Gln Arg Val Ser
                        135
                                            140
Ile Ala Arg Ala Leu Ala Met Glu Pro Glu Val Leu Leu Phe Asp Glu
                   150
                                       155
Pro Thr Ser Ala Leu Asp Pro Glu Leu Val Gly Glu Val Leu Arg Ile
               165
                                    170
Met Gln Lys Leu Ala Glu Glu Gly Lys Thr Met Val Val Thr His
           180
                                185
Glu Met Gly Phe Ala Arg Asn Val Ser Asn His Val Ile Phe Leu His
                            200
Gln Gly Lys Ile Glu Glu Gln Gly His Pro Asp Glu Val Leu Ala Asn
                        215
                                            220
Pro Gln Ser Pro Arg Leu Gln Gln Phe Leu Lys Gly Ser Leu Lys
                    230
                                        235
<210> 6069
<211> 350
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(336)
<400> 6069
His Asn Leu Leu Phe Gln Thr Arg Gln Asp Lys Gln Thr Asn Leu Ile
                                    10
Asp Ile Asn Phe Leu Ala Leu Pro Met Asn Leu Arg Asp Asp Arg Arg
                                25
Ile Asp Met Arg Asn Ser Met Asn Ala Phe Ser Pro Ala Gln Phe Arg
                            40
Ala Gln Phe Pro Ala Leu Ala Asp Ala Gly Ile Tyr Leu Asp Ser Ala
Ala Thr Ala Leu Lys Pro Gln Ala Val Ile Glu Ala Thr Arg Gln Phe
                    70
Tyr Ser Leu Ser Ala Gly Asn Val His Arg Ser Gln Tyr Ala Asp Ala
                85
                                    90
Gln Arg Leu Thr Ala Gln Tyr Glu Ala Ala Arg Asp Gln Val Ala Arg
            100
                                105
Leu Ile Asn Ala Asp Ser Gly Lys Asn Ile Val Trp Thr Arg Gly Thr
                            120
Thr Glu Ala Ile Asn Met Val Ala Gln Cys Tyr Ala Arg Pro Leu Leu
                        135
Gln Pro Gly Asp Glu Ile Ile Val Ser Glu Ala Glu His His Ala Asn
                    150
                                        155
Leu Val Pro Trp Leu Met Val Ala Glu Gln Thr Gly Ala Gln Val Val
               165
                                    170
Lys Leu Pro Leu Gly Ala Asp Phe Leu Pro Asp Val Ala Arg Leu Pro
```

```
Glu Leu Ile Thr Pro Arg Ser Arg Ile Leu Ala Leu Gly Gln Met Ser
                            200
Asn Val Thr Gly Gly Cys Pro Asp Leu Ala Arg Ala Ile Glu Ile Ala
                        215
                                            220
His Ala Ser Gly Val Val Met Val Asp Gly Ala Gln Gly Val Val
                    230
                                        235
His Phe Pro Ala Asp Val Gln Ala Leu Asp Ile Asp Phe Tyr Ala Phe
                245
                                    250
Ser Gly His Lys Leu Tyr Gly Pro Thr Gly Ile Gly Ala Leu Tyr Gly
                                265
            260
Lys Pro Glu Leu Leu Ala Arg Met Thr Pro Trp Leu Gly Gly Gly Lys
                            280
                                                285
Met Ile Thr Glu Val Thr Phe Asp Gly Phe Lys Thr Gln Asp Val Pro
                        295
                                            300
Tyr Arg Leu Glu Ala Gly Thr Pro Asn Val Ala Gly Val Ile Gly Leu
                    310
                                        315
Ser Ala Ala Leu Glu Trp Leu Ala Lys Thr Asp Val Val Gln Ala Xaa
               325
                                    330
Ser Trp Asn Arg Gly Leu Ala Thr Leu Val Glu Lys Asp
            340
                                345
<210> 6070
<211> 167
<212> PRT
<213> Enterobacter cloacae
<400> 6070
Arg Arg Cys Ala Gly Phe Arg Arg Pro Arg Pro Gly Ile Thr Gly
                                    10
Gly Leu Met Thr Ser Ser Ala Leu Ala Gly His Pro Phe Gly Thr Val
                                25
Ile Thr Glu Glu Thr Leu Lys Gln Thr Phe Val Pro Leu Thr Gln Trp
                            40
                                                45
Glu Asp Lys Tyr Arg Gln Leu Ile Leu Leu Gly Lys Gln Leu Pro Ala
                        55
Leu Ser Asp Glu Leu Lys Leu Gln Ala Lys Glu Ile Ala Gly Cys Glu
                    70
                                        7.5
Asn Arg Val Trp Leu Gly Phe Ser Val Ser Gly Glu Lys Leu His Phe
                                    90
Phe Gly Asp Ser Glu Gly Arg Ile Val Arg Gly Leu Leu Ala Val Leu
                                105
                                                    110
Leu Thr Ala Ile Glu Gly Lys Ser Ala Ala Glu Leu Leu Ala His Ser
                            120
Pro Leu Ala Leu Phe Asp Glu Leu Gly Leu Arg Thr Gln Leu Ser Ala
                        135
                                            140
Ser Arg Gly Gln Gly Leu Ile Ala Leu Asn Asp Ala Val Leu Asp Ala
                    150
                                        155
Ala Arg Gln Ala Gln Ala
                165
<210> 6071
<211> 70
<212> PRT
<213> Enterobacter cloacae
<400> 6071
Phe Arg Gly Arg Ala His Ser Asp Met Val Thr Leu Leu Ala Gly Tyr
                                    10
Gly Ile Ala Leu Arg Ala Gly Gln His Cys Ala Gln Pro Leu Leu Ala
                                25
```

Ala Ile Gly Val Ser Gly Thr Leu Arg Ala Ser Phe Ala Pro Tyr Asn

40 45 Thr Lys Ser Asp Val Asp Ala Leu Val Ser Ala Val Asp Arg Ala Leu 55 Glu Leu Leu Val Asp <210> 6072 <211> 378 <212> PRT <213> Enterobacter cloacae <400> 6072 Gly Gly Gly Thr Thr Ser Ala Pro Gly Glu Asp Asn Glu Arg Ser Trp Ala Lys Tyr Leu Met Thr Gly Ala Met Val Ala Ile Leu Ala Ala 25 Cys Ser Ser Lys Pro Thr Asp Arg Gly Gln Gln Tyr Lys Asp Gly Lys 40 Leu Ser Gln Pro Phe Ser Leu Val Asn Gln Pro Asp Ala Val Gly Ala 55 Pro Ile Asn Ala Gly Asp Phe Ser Glu Gln Val Tyr Gln Ile Arg Lys 75 Ala Ser Pro Arg Leu Tyr Gly Ala Gln Asn Asn Val Tyr Ser Ala Val 85 90 Gln Asp Trp Leu Arg Ala Gly Gly Asp Thr Arg Asn Met Arg Gln Phe 105 Gly Ile Asp Ala Trp Gln Met Glu Gly Ala Asp Asn Tyr Gly Asn Val 115 120 Gln Phe Thr Gly Tyr Tyr Thr Pro Val Val Gln Ala Arg His Thr Arg 135 140 Gln Gly Glu Phe Gln Tyr Pro Ile Tyr Arg Met Pro Pro Lys Arg Gly 150 155 Arg Leu Pro Ser Arg Ala Glu Ile Tyr Ala Gly Ala Leu Ser Glu Asn 170 165 175 Tyr Val Leu Ala Tyr Ser Asn Ser Leu Met Asp Asn Phe Ile Met Asp 180 185 Val Gln Gly Ser Gly Tyr Ile Asp Phe Gly Asp Gly Ser Pro Leu Asn 200 205 Phe Phe Ser Tyr Ala Gly Lys Asn Gly His Ala Tyr Arg Ser Ile Gly 220 215 Lys Val·Leu Ile Asp Arg Gly Glu Val Lys Arg Glu Asp Met Ser Met 230 235 Gln Ala Ile Arg Glu Trp Gly Glu Lys His Ser Glu Ala Glu Val Arg 245 250 Glu Leu Leu Glu Gln Asn Pro Ser Phe Val Phe Phe Lys Pro Gln Asn 265 Phe Ala Pro Val Lys Gly Ala Ser Ala Val Pro Leu Ile Gly Arg Ala 280 Ser Val Ala Ser Asp Arg Ser Ile Île Pro Ala Gly Thr Thr Leu Leu 295 300 Ala Glu Val Pro Leu Leu Asp Asn Gly Lys Phe Asn Gly Lys Tyr 310 315 Glu Leu Arg Leu Met Val Ala Leu Asp Val Gly Gly Ala Ile Lys Gly 325 330 Gln His Phe Asp Ile Tyr Gln Gly Ile Gly Pro Asp Ala Gly His Arg 345 Ala Gly Trp Tyr Asn His Tyr Gly Arg Val Trp Val Leu Lys Thr Ala 360 Pro Gly Thr Gly Asn Val Phe Ser Gly

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<210> 6073
<211> 271
<212> PRT
<213> Enterobacter cloacae
<400> 6073
Gly Phe Met Ser Val Val Ile Ser Asp Ala Trp Arg Gln Arg Phe Gly
                                    10
Gly Thr Ala Arg Leu Tyr Gly Glu Lys Ala Leu Gln Leu Phe Ala Asp
                                 25
Ala His Val Cys Val Val Gly Ile Gly Gly Val Gly Ser Trp Ala Ala
Glu Ala Leu Ala Arg Thr Gly Ile Gly Ala Ile Thr Leu Ile Asp Met
                        55
Asp Asp Val Cys Val Thr Asn Thr Asn Arg Gln Ile His Ala Leu Arg
                    70
                                         75
Asp Asn Val Gly Leu Ala Lys Ser Glu Val Met Ala Glu Arg Ile Arg
                85
                                     90
Leu Ile Asn Pro Glu Cys Arg Val Thr Val Ile Asp Asp Phe Val Thr
            100
                                105
Ala Asp Asn Val Ala Glu Tyr Met Ser Lys Gly Tyr Ser Tyr Val Ile
                            120
Asp Ala Ile Asp Ser Val Arg Pro Lys Ala Ala Leu Ile Ala Tyr Cys
                        135
                                             140
Arg Arg Tyr Lys Val Pro Leu Val Thr Thr Gly Gly Ala Gly Gly Gln
                    150
                                         155
Ile Asp Pro Thr Gln Ile Gln Val Ala Asp Leu Ala Lys Thr Ile Gln
                165
                                     170
Asp Pro Leu Ala Ala Lys Leu Arg Glu Arg Leu Lys Ser Asp Phe Asn
            180
                                185
                                                     190
Val Val Lys Asn Ser Lys Gly Lys Leu Gly Val Asp Cys Val Phe Ser
        195
                            200
Thr Glu Ala Leu Val Tyr Pro Gln Ala Asp Gly Ser Val Cys Ala Met
                        215
Lys Ser Thr Ala Glu Gly Pro Lys Arg Met Asp Cys Ala Ser Gly Phe
                    230
                                         235
Gly Ala Ala Thr Met Val Thr Ala Ser Phe Gly Phe Val Ala Val Ser
                245
                                     250
His Ala Leu Lys Lys Met Met Ala Lys Ala Glu Arg Gln Ala
            260
                                265
<210> 6074
<211> 69
<212> PRT
<213> Enterobacter cloacae
<400> 6074
Leu Leu Lys Glu Ile Ile Met Lys Lys Thr Ala Ala Ile Ile Ser Ala
                                    10
Cys Ala Leu Thr Phe Ala Leu Ser Ala Cys Ser Gly Asn Asn Tyr Val
                                25
Met His Thr Asn Asp Gly Arg Ser Ile Val Ser Glu Gly Lys Pro Thr
                            40
                                                 45
Thr Asp Asn Asp Thr Gly Met Ile Cys Leu His Thr Arg Arg Trp Lys
                        55
Ile Arg Tyr Cys Val
<210> 6075
<211> 154
<212> PRT
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<213> Enterobacter cloacae
 <220>
 <221>UNSURE
 <222>(93)
 <220>
 <221>UNSURE
 <222>(135)
 <220>
 <221>UNSURE
 <222>(142)
 <400> 6075
 His Leu Leu Cys Ile Asp Ser Lys Thr His Glu Phe Arg Leu Pro Glu
                                      10
 Arg Pro Arg Ala Ser Asn Leu Ala Arg Tyr Phe Leu Pro Pro Val Asn
             20
                                  25
 Arg Ile Thr Ala Met Pro Arg Ala Asn Glu Ile Lys Lys Gly Met Val
                              40
                                                  45
 Leu Asn Tyr Asn Gly Lys Leu Leu Ile Val Lys Asp Ile Asp Ile Gln
 Ala Pro Ser Ala Arg Gly Ala Ala Thr Leu Tyr Lys Met Arg Phe Ser
                     70
                                          75
 Asp Val Arg Thr Gly Leu Lys Val Glu Glu Arg Phe Xaa Gly Asp Asp
                                      90
 Ile Val Asp Thr Val Thr Leu Thr Arg Arg Tyr Val Asp Phe Ser Tyr
                                  105
 Ile Asp Gly Asn Glu Tyr Val Phe Met Asp Lys Glu Asn Tyr Pro Arg
                              120
 Ile Ser Ser Pro Lys Ile Xaa Ser Lys Lys Ser Cys Cys Xaa Phe Leu
                         135
                                              140
 Lys Val Gly Cys Arg Thr Cys Arg Cys
                     150
 <210> 6076
 <211> 424
 <212> PRT
 <213> Enterobacter cloacae
· <400> 6076
 Phe Phe Val Ala Ile Leu Thr Leu Pro Ser Val Tyr Leu Met Thr Gly
                                      10
 Gly Val Asn Ser Ala Ser Leu Cys Tyr Ser Gln Arg Leu Asn Met His
                                  25
             20
 Asn Thr Pro Ala Ala Ala Ser Pro Lys Pro Phe Asp Leu Thr Ser Thr
                                                . 45
                             40
 Ala Phe Leu Ile Val Ala Phe Leu Thr Gly Ile Ala Gly Ala Leu Gln
                         55
                                              60
 Thr Arg Thr Leu Ser Leu Phe Leu Thr Asn Glu Val His Ala Arg Pro
                     70
                                         75
 Ala Met Val Gly Phe Phe Phe Thr Gly Ser Ala Ile Ile Gly Ile Phe
                                      90
 Val Ser Gln Phe Leu Ala Gly Arg Ser Asp Arg Lys Gly Asp Arg Lys
                                 105
 Ser Leu Ile Val Phe Cys Cys Leu Leu Gly Val Phe Ala Cys Leu Leu
                             120
 Phe Ala Trp Asn Arg Asn Tyr Phe Ile Leu Leu Phe Val Gly Val Phe
                         135
                                             140
 Leu Ser Ser Phe Gly Ser Thr Ala Asn Pro Gln Met Phe Ala Leu Ala
```

```
150
                                       155
Arg Glu His Ala Asp His Thr Gly Arg Glu Ala Val Met Phe Ser Ser
                                    170
               165
Ile Leu Arq Ala Gln Val Ser Leu Ala Trp Val Ile Gly Pro Pro Leu
                               185
                                                    190
Ala Tyr Ala Leu Ala Met Gly Phe Gly Phe Thr Val Met Tyr Leu Ser
                           200
                                                205
Ala Ala Val Ala Phe Val Val Cys Gly Ala Met Val Trp Phe Phe Leu
                                            220
                       215
Pro Ser Met Arg Lys Glu Pro Lys Val Ala Thr Gly Thr Leu Glu Ala
                                       235
                   230
Pro Arg Arg Asn Arg Arg Asp Ala Leu Leu Leu Phe Ile Ile Cys Thr
               245
                                   250
Leu Met Trp Gly Thr Asn Ser Leu Tyr Ile Ile Asn Met Pro Leu Phe
           260
                                265
Ile Ile Asp Glu Leu His Leu Pro Glu Lys Leu Ala Gly Ile Met Met
                           280
                                               285
Gly Thr Ala Ala Gly Leu Glu Ile Pro Thr Met Leu Ile Ala Gly Tyr
                       295
                                            300
Tyr Ala Lys Arg Phe Gly Lys Arg Phe Leu Met Arg Val Ala Ala Val
                    310
                                        315
Ala Gly Leu Leu Phe Tyr Val Gly Met Leu Thr Val His Thr Pro Ala
                                    330
Leu Leu Leu Ala Leu Gln Leu Leu Asn Ala Ile Tyr Ile Gly Ile Leu
                                345
Ala Gly Ile Gly Met Leu Tyr. Phe Gln Asp Leu Met Pro Gly Gln Ala
                            360
Gly Ser Ala Thr Thr Leu Tyr Thr Asn Thr Thr Arg Val Gly Trp Ile
                        375
Ile Ala Gly Ser Leu Ala Gly Val Val Ala Glu Ile Trp Asn Tyr His
                   390
                                        395
Thr Val Phe Trp Ile Ala Leu Val Met Cys Val Met Thr Leu Ser Cys
               405
                                    410
Leu Thr Arg Ile Lys Asp Val
            420
<210> 6077
<211> 332
<212> PRT
<213> Enterobacter cloacae
<400> 6077
Thr Gly Ala Glu Ser Asp Trp Arg Arg His Arg Gly Arg Ser Gly Gly
                                    10
Gly Arg Ile Met Ser Arg Arg Val Ala Thr Ile Thr Leu Asn Pro Ala
Tyr Asp Leu Val Gly Phe Cys Pro Glu Ile Glu Arg Gly Glu Val Asn
                            40
Leu Val Arg Thr Thr Gly Leu His Ala Ala Gly Lys Gly Ile Asn Val
Ala Lys Val Leu Lys Asp Leu Gly Ile Asp Val Thr Val Gly Gly Phe
                    70
Leu Gly Lys Asp Asn Gln Asp Gly Phe Gln Gln Leu Phe Ser Glu Leu
                85
Gly Ile Ala Asn Arg Phe Gln Val Val Gln Gly Arg Thr Arg Ile Asn
                                105
                                                    110
            100
Val Lys Leu Thr Glu Lys Asp Gly Glu Val Thr Asp Leu Asn Phe Ser
```

120

135

Gly Phe Glu Val Thr Pro Ala Asp Trp Glu Arg Phe Val Ala Asp Ser

Leu Ser Trp Leu Gly Gln Phe Asp Met Val Cys Val Ser Gly Ser Leu

125

```
150
                                        155
Pro Ser Gly Val Ser Pro Glu Ala Phe Thr Asp Trp Met Thr Arg Leu
               165
                                    170
Arg Ser Gln Cys Pro Cys Ile Ile Phe Asp Ser Ser Arg Asp Ala Leu
            180
                                185
Val Ala Gly Leu Lys Ala Ser Pro Trp Leu Val Lys Pro Asn Arg Arg
                            200
Glu Leu Glu Ile Trp Ala Gly Arg Lys Leu Pro Glu Leu Lys Asp Val
                        215
                                            220
Ile Asp Ala Ala His Ala Leu Arg Glu Gln Gly Ile Ala His Val Val
                    230
                                        235
Ile Ser Leu Gly Ala Glu Gly Ala Leu Trp Val Asn Ala Ser Gly Glu
                245
                                    250
Trp Ile Ala Lys Pro Pro Ser Met Glu Val Val Ser Thr Val Gly Ala
                               265
           260
Gly Asp Ser Met Val Gly Gly Leu Ile Tyr Gly Leu Leu Met Arg Glu
                            280
Ser Ser Glu His Thr Leu Arg Leu Ala Thr Ala Val Ala Ala Leu Ala
                        295
                                            300
Val Ser Gln Ser Asn Val Gly Ile Thr Asp Arg Thr Gln Leu Ala Ala
                   310
                                       315
Met Met Ala Arg Val Asp Leu Lys Pro Phe Asn
                325
<210> 6078
<211> 389
<212> PRT
<213> Enterobacter cloacae
<400> 6078
Ala Glu Thr Ile Gln Phe Gln Gln Glu Arg Arg Ile Met Phe Gln Leu
                                    10
Ser Val Gln Asp Ile His Pro Gly Glu Gln Ala Gly Asn Lys Glu Glu
           20
                                25
Ala Ile Arg Gln Val Ala Ala Ala Leu Val Gln Ala Gly Asn Val Ala
                            40
Asp Gly Tyr Val Asn Gly Met Leu Ala Arg Glu Gln Gln Thr Ser Thr
                        55
Phe Leu Gly Asn Gly Ile Ala Ile Pro His Gly Thr Thr Asp Thr Arg
                    70
                                        75
Asp Gln Val Leu Lys Thr Gly Val Gln Val Phe Gln Phe Pro Gln Gly
                                    90
Val Leu Trp Gly Glu Gly Gln Val Ala Tyr Val Ala Ile Gly Ile Ala
                                105
Ala Ser Gly Asp Glu His Leu Gly Leu Leu Arg Gln Leu Thr His Val
                            120
                                                125
Leu Ser Asp Asp Ala Val Ala Glu Gln Leu Lys Ser Ala Thr Thr Ala
                        135
                                            140
Glu Glu Leu Arg Ala Leu Leu Met Gly Glu Lys Gln Ser Glu Ala Leu
                    150
                                        155
Lys Leu Asp Asn Glu Thr Leu Thr Leu Asp Val Val Ala Ser Asp Leu
                                    170
                165
                                                        175
Val Thr Leu Gln Ala Leu Asn Ala Ala Arg Leu Lys Glu Val Gly Ala
                                185
                                                    190
Ala Asp Ser Ala Phe Val Thr Arg Ala Ile Asn Asp Lys Pro Leu Asn
                            200
Leu Gly Gln Gly Ile Trp Leu Asn Asp Ser Ala Glu Gly Asn Leu Arg
                        215
                                            220
Ser Ala Ile Ala Val Ser Arg Ala Ala Val Ala Phe Glu Thr Asp Gly
                    230
                                        235
```

Glu Arg Ala Ala Met Leu Val Thr Val Ala Met Thr Asp Asp Gln Pro

```
245
                                    250
Val Ser Val Leu Lys Arg Leu Gly Asp Leu Leu Asn Asn Lys Ala
                               265
            260
Glu Lys Leu Leu Asn Ala Asp Ala Ala Thr Val Leu Ala Leu Leu Thr
                            280
                                                285
Ser Asp Asp Ala Leu Thr Asp Asp Leu Leu Ser Ala Glu Tyr Val Val
                        295
                                            300
Arg Asn Glu His Gly Leu His Ala Arg Pro Gly Thr Met Leu Val Asn
                    310
                                        315
Thr Ile Lys Gln Phe Glu Ser Glu Ile Thr Val Thr Asn Leu Asp Gly
                325
                                    330
Ser Gly Lys Pro Ala Asn Gly Arg Ser Leu Met Lys Val Val Ala Leu
            340
                                345
Gly Val Lys Lys Gly His Arg Leu Arg Phe Thr Ala Gln Gly Ala Asp
                            360
Ala Glu Gln Ala Leu Lys Ala Ile Gly Asp Ala Ile Ala Ala Gly Leu
Gly Glu Gly Ala
385
<210> 6079
<211> 585
<212> PRT
<213> Enterobacter cloacae
<400> 6079
Asn Leu Leu Thr Asn Ser Arg Gly Ile Met Lys Thr Leu Leu Ile
                                    10
Ile Asp Ser Gly Leu Gly Gln Ala Arg Ala Tyr Met Ala Lys Thr Leu
            20
                                25
Leu Gly Ala Ala Ala Gln Lys Ala His Leu Asp Ile Ile Asp Asn Pro
                            40
Gly Asp Ala Glu Met Ala Ile Val Leu Gly Asp Lys Ile Pro Ala Asp
                        55
Ser Ala Leu Asn Gly Lys Lys Val Trp Leu Gly Asp Ile Asn Arg Ala
                    70
                                        7.5
Val Ala His Pro Glu Leu Phe Leu Ser Glu Ala Lys Gly His Ala Thr
                                    90
                85
Val Tyr Ser Ala Pro Val Glu Ala Ala Pro Val Ala Ala Val Gly Pro
                                105
            100
                                                     110
Lys Arg Ile Val Ala Val Thr Ala Cys Pro Thr Gly Val Ala His Thr
                            120
Phe Met Ala Ala Glu Ala Ile Glu Thr Glu Ala Lys Lys Arg Gly Trp
                        135
Trp Val Lys Val Glu Thr Arg Gly Ser Val Gly Ala Gly Asn Ala Ile
                    150
                                        155
Thr Pro Glu Glu Val Ala Glu Ala Asp Leu Val Ile Val Ala Ala Asp
                                    170
Ile Glu Val Asp Leu Ala Lys Phe Ala Gly Lys Pro Met Tyr Arg Thr
                                185
Ser Thr Gly Leu Ala Leu Lys Lys Thr Ala Gln Glu Phe Asp Lys Ala
       195
                            200
Leu Ala Glu Ala Lys Pro Tyr Gln Ala Thr Gly Ala Ala Lys Thr Ala
                        215
                                            220
Thr Glu Gly Lys Lys Glu Ser Ala Gly Ala Tyr Arg His Leu Leu Thr
                    230
                                        235
Gly Val Ser Tyr Met Leu Pro Met Val Val Ala Gly Gly Leu Cys Ile
                245
                                    250
Ala Leu Ser Phe Ala Phe Gly Ile Glu Ala Phe Lys Glu Pro Gly Thr
                                265
```

Leu Ala Ala Leu Met Gln Ile Gly Gly Gly Ser Ala Phe Ala Leu

285

280

```
Met Val Pro Val Leu Ala Gly Phe Ile Ala Phe Ser Ile Ala Asp Arg
                         295
                                             300
 Pro Gly Leu Thr Pro Gly Leu Ile Gly Gly Met Leu Ala Val Ser Thr
                     310
                                         315
Gly Ser Gly Phe Ile Gly Gly Ile Ile Ala Gly Phe Leu Ala Gly Tyr
                 325
                                     330
Val Ala Lys Leu Ile Ser Ser Lys Leu Lys Leu Pro Gln Ser Met Glu
                                 345
Ala Leu Lys Pro Ile Leu Ile Ile Pro Leu Ile Ser Ser Leu Val Val
                             360
 Gly Leu Ala Met Ile Tyr Leu Ile Gly Lys Pro Val Ala Gly Ile Leu
                         375
 Glu Gly Leu Thr His Trp Leu Gln Thr Met Gly Thr Ala Asn Ala Val
                     390
                                         395
Leu Leu Gly Ala Ile Leu Gly Gly Met Met Cys Thr Asp Met Gly Gly
                 405
                                     410
 Pro Val Asn Lys Ala Ala Tyr Ala Phe Gly Val Gly Leu Leu Ser Thr
             420
                                 425
 Gln Thr Tyr Ala Pro Met Ala Ala Ile Met Ala Ala Gly Met Val Pro
         435
                             440
                                                  445
 Pro Leu Ala Leu Gly Leu Ala Thr Ile Ile Ala Arg Arg Lys Phe Asp
                         455
                                             460
Lys Ala Gln Glu Gly Gly Lys Ala Ala Leu Val Leu Gly Leu Cys
                     470
                                         475
 Phe Ile Thr Glu Gly Ala Ile Pro Phe Ala Ala Arg Asp Pro Met Arg
                 485
                                     490
Val Leu Pro Cys Cys Ile Val Gly Gly Ala Val Thr Gly Ala Ile Ser
             500
                                 505
Met Ala Val Gly Ala Lys Leu Met Ala Pro His Gly Gly Leu Phe Val
                             520
Leu Leu Ile Pro Gly Ala Ile Thr Pro Val Leu Gly Tyr Leu Leu Ala
                         535
                                             540
 Ile Val Ala Gly Thr Leu Val Ala Gly Leu Ser Tyr Ala Val Leu Lys
                     550
                                         555
Arg Pro Glu Ala Glu Val Val Ala Lys Ala Pro Ser Val Phe Ser Thr
                                     570
Arg Arg Arg Gly Ser Ala Leu Ser Gln
             580
<210> 6080
<211> 832
<212> PRT
<213> Enterobacter cloacae
<400> 6080
Lys Arg Trp Gly Cys His Cys Trp Arg Ser Leu Val Leu Lys Leu Thr
                                     10
Thr Leu Leu Val Pro Trp Arg Ala Lys Arg Lys Lys Ala Ser Arg Pro
                                 25
·Val Leu Ile Ser Thr Gly Asp Lys Asp Met Ala Gln Leu Val Thr Pro
                             40
Gly Ile Thr Leu Ile Asn Thr Met Thr Asn Thr Ile Leu Gly Pro Glu
                         55
Glu Val Val Ala Lys Tyr Gly Val Pro Pro Glu Leu Ile Ile Asp Phe
                     70
Leu Ala Leu Met Gly Asp Ser Ser Asp Asn Ile Pro Gly Val Pro Gly
                                     90
Val Gly Glu Lys Thr Ala Gln Ala Leu Leu Gln Gly Leu Gly Gly Leu
                                 105
Asp Thr Leu Tyr Ala Glu Ser Asp Lys Ile Ala Gly Leu Thr Phe Arg
```

115 120 125 Gly Ala Lys Thr Met Ala Gly Lys Leu Ala Asp Asn Lys Glu Val Ala 135 140 Tyr Leu Ser Tyr Gln Leu Ala Thr Ile Lys Thr Asp Val Lys Leu Glu 150 155 Leu Thr Cys Glu Gln Leu Glu Val Gln Glu Pro Ala Ala Asp Glu Leu 165 170 Leu Gly Leu Phe Arg Lys Tyr Glu Phe Lys Arg Trp Thr Ala Asp Val 185 Glu Ala Gly Lys Trp Leu Gln Ala Lys Gly Ala Lys Pro Ala Ala Lys 200 Pro Lys Glu Thr Ile Val Val Asp Ala Glu Glu Gln Ala Glu Glu Glu 215 220 210 Ala Ile Ala Leu Ser Phe Asp Asn Tyr Glu Thr Ile Leu Glu Glu Ser 230 235 Arg Leu Val Ala Trp Ile Glu Lys Leu Lys Lys Ala Pro Val Phe Ala 250 245 Phe Asp Thr Glu Thr Asp Ser Leu Asp Asn Ile Thr Ala Asn Met Val 260 265 Gly Leu Ser Phe Ala Thr Glu Pro Gly Val Ala Ala Tyr Val Pro Val 285 280 Ala His Asp Tyr Leu Asp Ala Pro Glu Gln Ile Ser Arg Glu Arg Ala 295 300 Leu Glu Leu Leu Lys Pro Ile Leu Glu Tyr Glu Lys Ala Leu Lys Val 310 315 Gly Gln Asn Leu Lys Tyr Asp Arg Gly Ile Leu Gln Asn Tyr Gly Ile 330 325 Glu Leu Arg Gly Ile Ala Phe Asp Thr Met Leu Glu Ser Tyr Ile Leu 340 345 Asp Ser Val Ala Gly Arg His Asp Met Asp Ser Leu Ser Asp Arg Trp 360 Leu Lys His Lys Thr Ile Thr Phe Glu Glu Ile Ala Gly Lys Gly Lys 375 Asn Gln Leu Thr Phe Asn Gln Ile Ala Leu Glu Glu Ala Gly Arg Tyr 390 Ala Ala Glu Asp Ala Asp Val Thr Leu Gln Leu His Leu Lys Met Trp 410 Pro Lys Leu Gln Lys His Glu Gly Pro Leu Asn Val Phe Arg Asn Ile 420 425 Glu Met Pro Leu Val Pro Val Leu Ser Arg Ile Glu Arg Asn Gly Val 440 Lys Ile Asp Pro Thr Val Leu His Asn His Ser Gly Glu Leu Ala Gln 460 455 Arg Leu Thr Glu Leu Glu Gln Lys Ala His Glu Leu Ala Gly Glu Ala 470 475 Phe Asn Leu Ser Ser Pro Lys Gln Leu Gln Thr Ile Leu Phe Glu Lys 485 490 Gln Gly Ile Lys Pro Leu Lys Lys Thr Pro Gly Gly Ala Pro Ser Thr 505 500 Ser Glu Glu Val Leu Glu Glu Leu Ala Leu Asp Tyr Pro Leu Pro Lys 520 525 Val Ile Leu Gln Tyr Arg Gly Leu Ala Lys Leu Lys Ser Thr Tyr Thr 535 540 Asp Lys Leu Pro Leu Met Ile Asn Pro Lys Thr Gly Arg Val His Thr 550 555 Ser Tyr His Gln Ala Val Ala Ala Thr Gly Arg Leu Ser Ser Thr Asp 570 Pro Asn Leu Gln Asn Ile Pro Val Arg Asn Glu Glu Gly Arg Arg Ile 585 Arg Gln Ala Phe Ile Ala Pro Glu Asp Tyr Leu Ile Val Ser Ala Asp 600

```
Tyr Ser Gln Ile Glu Leu Arg Ile Met Ala His Leu Ser Arg Asp Lys
                       615
                                            620
Gly Leu Leu Thr Ala Phe Ala Glu Gly Lys Asp Ile His Arg Ala Thr
                                       635
                   630
Ala Ala Glu Val Phe Gly Leu Pro Leu Glu Ser Val Thr Asn Glu Gln
                645
                                 . 650
Arg Arg Ser Ala Lys Ala Ile Asn Phe Gly Leu Ile Tyr Gly Met Ser
           660
                               665
                                                   670
Ala Phe Gly Leu Ser Arg Gln Leu Asn Ile Pro Arg Lys Glu Ser Gln
                           680
                                                685
       675
Lys Tyr Met Asp Leu Tyr Phe Glu Arg Tyr Pro Gly Val Leu Glu Tyr
                                            700
                       695
Met Glu Arg Thr Arg Ala Gln Ala Lys Glu Lys Gly Tyr Val Glu Thr
                    710
                                        715
Leu Asp Gly Arg Arg Leu Tyr Leu Pro Asp Ile Lys Ser Ser Asn Ala
                725
                                   730
Ala Arg Arg Ala Gly Ala Glu Arg Ala Ala Ile Asn Ala Pro Met Gln
                                745
Gly Thr Ala Ala Asp Ile Ile Lys Arg Ala Met Ile Ala Val Asp Ala
                           760
Trp Leu Glu Lys Glu Lys Pro Arg Val Lys Met Ile Met Gln Val His
                        775
                                            780
Asp Glu Leu Val Phe Glu Val His Lys Asp Asp Leu Glu Thr Val Ser
                                        795
                    790
Gln Lys Ile His Glu Leu Met Glu Asn Ser Met Lys Leu Asp Val Pro
     .
               805
                                    810
Leu Leu Val Glu Val Gly Ser Gly Glu Asn Trp Asp Gln Ala His
                                825
<210> 6081
<211> 86
<212> PRT
<213> Enterobacter cloacae
<400> 6081
Asn Ile Met Lys Lys Pro Thr Ser Ala Ala Gly Ala Lys Arg Pro Ala
                                    10
Lys Ala Arg Arg Lys Thr Arg Glu Glu Leu Asn Gln Glu Ala Arg Asp
            20
                                25
Arg Lys Arg Asp Lys Lys His Arg Gly His Ala Ala Gly Ser Arg Ala
                            40
Asn Gly Gly Gly Ala Pro Ser Ala Ser Gly Lys Arg Gln Pro Ala Glu
                        55
Lys Ile Leu Val Ser Ala Ile Lys Thr Pro Ile Gln Leu Gly Arg Glu
Arg His Pro Gly His
<210> 6082
<211> 157
<212> PRT
<213> Enterobacter cloacae
<400> 6082
Cys Phe His Pro Ser Val Ala Ser Phe Thr His Lys Phe Ile Thr Gly
                                    10
Thr Asp Ile Met Val Gln Ile Pro Glu Asn Pro Leu Ile Leu Val Asp
                                25
Gly Ser Ser Tyr Leu Tyr Arg Ala Tyr His Ala Phe Pro Pro Leu Thr
```

Asn Ser Ala Gly Glu Pro Thr Gly Ala Met Tyr Gly Val Leu Asn Met

```
55
Leu Arg Ser Leu Ile Leu Gln Tyr His Pro Thr His Ala Ala Val Val
                                        75
Phe Asp Ala Lys Gly Lys Thr Phe Arg Asp Glu Leu Phe Glu His Tyr
                85
                                    90
Lys Ser His Arg Pro Pro Met Pro Asp Asp Leu Arg Ala Gln Ile Glu
            100
                                105
Pro Leu His Ala Met Val Lys Ala Met Gly Leu Pro Leu Leu Ala Val
                           120
                                                125
       115
Ser Gly Val Glu Ala Asp Asp Val Ile Gly Thr Leu Ala Arg Glu Ala
                      135
Glu Lys Ser Lys Pro Pro Gly Ser Asp Gln Tyr Arg
                    150
<210> 6083
<211> 221
<212> PRT
<213> Enterobacter cloacae
<400> 6083
Ser Pro Gln Ile Thr Ile Phe Gly Asp Asp His Val Thr Thr Trp Asn
                                    10
Tyr Gln Gln Thr His Phe Val Thr Ser Ala Pro Asp Ile Arg His Leu
                                25
Pro Ser Asp Thr Gly Ile Glu Val Ala Phe Ala Gly Arg Ser Asn Ala
                            40
Gly Lys Ser Ser Ala Leu Asn Thr Leu Thr Asn Gln Lys Asn Leu Ala
                        55
Arg Thr Ser Lys Thr Pro Gly Arg Thr Gln Leu Ile Asn Leu Phe Glu
                    70
                                        75
Val Ala Glu Gly Lys Arg Leu Val Asp Leu Pro Gly Tyr Gly Tyr Ala
                85
                                    90
Gln Val Pro Glu Glu Met Lys Ile Lys Trp Gln Arg Ala Leu Gly Glu
                                105
            100
Tyr Leu Glu Lys Arg Met Cys Leu Lys Gly Leu Val Val Leu Met Asp
                            120
                                                 125
Ile Arg His Pro Leu Lys Asp Leu Asp Gln Gln Met Ile Asp Trp Ala
                        135
                                            140
Val Ala Ser Asp Ile Ala Val Leu Val Leu Leu Thr Lys Ala Asp Lys
                    150
                                        155
Leu Ala Ser Gly Ala Arg Lys Ala Gln Val Asn Lys Val Arg Glu Ala
                                    170
                165
Val Leu Ala Phe Asn Gly Asp Val Gln Val Glu Pro Phe Ser Ser Leu
            180
                                185
Lys Lys Gln Gly Val Asp Lys Leu Arg Gln Lys Leu Asp Ser Trp Phe
                            200
Asn Asp Leu Glu Pro Ala Thr Glu Ala Glu Ala Glu
    210
                        215
                                            220
<210> 6084
<211> 216
<212> PRT
<213> Enterobacter cloacae
<400> 6084
Thr Arg Trp Ile Phe Ala Gly Val Val Lys Thr Gly Glu Thr Leu Asp
                                    10
Asn Glu Leu Leu Asp Glu Leu Ser His Ser Pro Glu Met Gln Gln Thr
                                25
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Trp Glu Ser Tyr His Leu Ile Arg Asp Thr Leu Arg Gly Asp Thr Ser

2364 Glu Val Leu His Phe Asp Ile Ser Ala Arg Val Met Ala Ala Ile Glu 55 Asn Glu Pro Val His Gln Thr Thr Pro Leu Ile Pro Glu Ala Gln Pro 70 75 Ala Pro His Gln Trp Gln Lys Met Pro Phe Trp His Lys Val Arg Pro 85 90 Trp Ala Ser Gln Leu Thr Gln Met Gly Val Ala Ala Cys Val Ser Leu 100 105 Ala Val Ile Val Gly Val Gln His Tyr Asn Thr Gln Ser Glu Ala Asn 120 Gln Gln Pro Glu Ala Pro Val Phe Asn Thr Leu Pro Met Met Gly Lys 135 140 Ala Ser Pro Val Ser Leu Gly Val Pro Ala Asp Ala Ser Ala Ser Gly 150 155 Gly Gln Gln Gln Val Gln Glu Gln Arg Arg Ile Asn Ala Met 170 Leu Gln Asp Tyr Glu Leu Gln Arg Arg Leu His Ser Glu Gln Leu Gln 185 190 Phe Glu Gln Ala Gln Thr Gln Gln Ala Ala Val Gln Val Pro Gly Asn 200 Gln Thr Leu Gly Thr Gln Ser Gln 210 <210> 6085 <211> 544 <212> PRT <213> Enterobacter cloacae <400> 6085 Leu Phe Asn Tyr Met Lys Asn Ile Arg Asn Phe Ser Ile Ile Ala His 10 Ile Asp His Gly Lys Ser Thr Leu Ser Asp Arg Ile Ile Gln Ile Cys 20 25 Gly Gly Leu Ser Asp Arg Glu Met Ala Ala Gln Val Leu Asp Ser Met 40 Asp Leu Glu Arg Glu Arg Gly Ile Thr Ile Lys Ala Gln Ser Val Thr 55 Leu Asp Tyr Lys Ala Ser Asp Gly Glu Thr Tyr Gln Leu Asn Phe Ile 70 75 Asp Thr Pro Gly His Val Asp Phe Ser Tyr Glu Val Ser Arg Ser Leu 90 8.5 Ala Ala Cys Glu Gly Ala Leu Leu Val Val Asp Ala Gly Gln Gly Val 100 105 Glu Ala Gln Thr Leu Ala Asn Cys Tyr Thr Ala Met Glu Met Asp Leu 120 Glu Val Val Pro Val Leu Asn Lys Ile Asp Leu Pro Ala Ala Asp Pro 135 140 Glu Arg Val Ala Glu Glu Ile Glu Asp Ile Val Gly Ile Asp Ala Thr Asp Ala Val Arg Cys Ser Ala Lys Thr Gly Val Gly Val Pro Asp Val 170 Leu Glu Arg Leu Val Arg Asp Ile Pro Pro Pro Glu Gly Asp Pro Asp 185 190 Ala Pro Leu Gln Ala Leu Ile Ile Asp Ser Trp Phe Asp Asn Tyr Leu

200

215

230

Gly Val Val Ser Leu Val Arg Ile Lys Asn Gly Thr Met Arg Lys Gly

Asp Lys Ile Lys Val Met Ser Thr Gly Gln Val Tyr Asn Ala Asp Arg

Leu Gly Ile Phe Thr Pro Lys Gln Val Asp Arg Thr Glu Leu Lys Cys

205

220

235

```
Gly Glu Val Gly Trp Leu Val Cys Ala Ile Lys Asp Ile Leu Gly Ala
            260
                                265
Pro Val Gly Asp Thr Leu Thr Gly Ala Arg Asn Pro Ala Asp Lys Ala
                            280
                                                285
Leu Pro Gly Phe Lys Lys Val Lys Pro Gln Val Tyr Ala Gly Leu Phe
                        295
                                            300
Pro Val Ser Ser Asp Asp Tyr Glu Asn Phe Arg Asp Ala Leu Gly Lys
                    310
                                        315
Leu Ser Leu Asn Asp Ala Ser Leu Phe Tyr Glu Pro Glu Ser Ser Thr
                                    330
                325
Ala Leu Gly Phe Gly Phe Arg Cys Gly Phe Leu Gly Leu Leu His Met
                                345
Glu Ile Ile Gln Glu Arg Leu Glu Arg Glu Tyr Asp Leu Asp Leu Ile
                            360
Thr Thr Ala Pro Thr Val Val Tyr Glu Val Glu Thr Thr Ser Lys Glu
                        375
                                            380
Val Ile Tyr Val Asp Ser Pro Ser Lys Leu Pro Pro Leu Asn Asn Ile
                    390
                                        395
Gln Glu Leu Arg Glu Pro Ile Ala Glu Cys His Met Leu Leu Pro Gln
                405
                                    410
Glu Phe Leu Gly Asn Val Ile Thr Leu Cys Ile Glu Lys Arg Gly Val
                                425
            420
Gln Thr Asn Met Val Tyr His Gly Asn Gln Val Ala Leu Thr Tyr Glu
                            440
Ile Pro Met Ala Glu Val Val Leu Asp Phe Phe Asp Arg Leu Lys Ser
                        455
                                            460
Thr Ser Arg Gly Tyr Ala Ser Leu Asp Tyr Asn Phe Lys Arg Phe Gln
                    470
                                        475
Ala Ser Asn Met Val Arg Val Asp Val Leu Ile Asn Gly Glu Arg Val
                                    490
                485
Asp Ala Leu Ala Leu Ile Thr His Asn Asp Asn Ala Pro Tyr Arg Gly
                                                     510
            500
                                505
Arg Glu Leu Val Glu Lys Met Lys Asp Leu Ile Pro Arg Gln Gln Phe
                            520
                                                 525
Asp Ile Ala Ser Leu His Thr Arg Leu Ala Gly Ser Ala Leu Arg Tyr
    530
                        535
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<210> 6086

<211> 164

<212> PRT

<213> Enterobacter cloacae

<400> 6086

Ile Gln Gly Cys Ala Met Ile Lys Glu Trp Ala Thr Val Val Ser Trp Gln Asp Gly Val Ala Leu Val Ser Cys Asp Val Lys Ala Ser Cys Ser 20 25 Ser Cys Ala Ser Arg Ala Gly Cys Gly Ser Arg Val Leu Asn Lys Leu 40 45 Gly Pro Gln Thr Ser His Thr Ile Thr Val Pro Ser Ala Gln Pro Leu 55 Val Ala Gly Gln Lys Val Glu Leu Gly Ile Ala Glu Gly Ser Leu Leu 70 75 Thr Ser Ala Met Leu Val Tyr Leu Ser Pro Leu Ala Gly Leu Phe Val 90 85 Met Gly Gly Val Phe Gln Met Leu Phe Gly Thr Asp Leu Ala Ala Met 100 105 Cys Gly Ala Ala Leu Gly Gly Val Gly Gly Phe Trp Leu Ala Lys Gly 120 125 Val Ser Pro Arg Leu Ala Ala Arg Glu Ala Trp Gln Pro Val Ile Leu 135

Ser Val Ala Leu Ala Pro Asp Gln Leu Arg Val Glu Thr Leu Ser Ser 150 155 Lys Ala Arg <210> 6087 <211> 341 <212> PRT <213> Enterobacter cloacae <400> 6087 Ala Gly Pro Asn Pro Ala Gly Cys Cys Ala Gly Ala Arg Lys Pro Asn 10 Phe Arg Asn Ala Ile Ala Val Met Lys Gln Leu Trp Phe Ala Met Ser 25 20 Leu Met Ala Gly Ser Leu Phe Phe Ser Ala Asn Ala Ser Ala Asp Val 40 Ser Ser Gly Ala Leu Leu Gln Gln Met Asn Leu Ala Ser Gln Ser Leu 55 Asn Tyr Glu Leu Ala Phe Ile Ser Ile Asn Lys Gln Gly Val Glu Ser 70 7.5 Leu Arg Tyr Arg His Ala Arg Leu Asp Asn Gln Pro Leu Ala Gln Leu 90 Leu Gln Met Asp Gly Pro Arg Glu Val Val Gln Arg Gly Asn Glu 105 110 Ile Ser Tyr Phe Glu Pro Gly Leu Glu Pro Phe Thr Leu Asn Gly Asp 120 Tyr Ile Val Asp Ser Leu Pro Ser Leu Ile Tyr Thr Asp Phe Lys Arg 135 Leu Ala Pro Tyr Tyr Asp Phe Ile Ser Val Gly Arg Thr Arg Ile Ala 150 155 Asp Arg Leu Cys Glu Val Ile Arg Val Val Ala Arg Asp Gly Thr Arg 170 Tyr Ser Tyr Ile Val Trp Ile Asp Ala Glu Thr Lys Leu Pro Met Arg 185 Val Asp Leu Leu Asp Arg Asp Gly Glu Thr Leu Glu Gln Phe Arg Val 200 Ile Ser Phe Asp Val Asn Ser Gln Val Gly Asn Ser Met Gln Tyr Leu 215 220 Ala Lys Ala Ser Leu Pro Pro Leu Leu Ser Val Pro Ala Gly Asp Ser 230 235 Val Asn Phe Asn Trp Val Pro Ser Trp Ile Pro Gln Gly Phe Ser Glu 245 250 Val Ser Ser Ser Arg Gln Leu Pro Thr Ile Glu Thr Pro Val Glu 265 Ser Arg Leu Tyr Ser Asp Gly Leu Phe Ser Phe Ser Val Asn Ile Asn 280 285 Arg Ala Thr Ala Asn Ser Ser Glu Gln Met Leu Arg Thr Gly Arg Arg 295 300 Thr Val Ser Thr Thr Val Arg Asp Asn Ala Glu Ile Thr Ile Val Gly 310 315 Glu Leu Pro Pro Pro Thr Ala Lys Arg Ile Ser Asp Ser Ile Lys Phe 330 Arg Ala Ala Gln

<210> 6088

<211> 81

<212> PRT

<213> Enterobacter cloacae

<211> 272 <212> PRT <213> Enterobacter cloacae <400> 6089 Asp Ile Thr Ser Glu Asn Leu Asp Ala Arg Leu Glu Arg Thr Arg Val 10 Pro Ile Glu Leu Glu Gln Leu Val Ile Ser Phe Asn His Met Ile Gly 25 Lys Ile Glu Asp Val Phe Thr Arg Gln Ala Asn Phe Ser Ala Asp Ile Ala His Glu Ile Arg Thr Pro Ile Thr Asn Leu Val Thr Gln Thr Asp 5.5 Ile Ala Leu Ser Gln Asp Arg Thr Gln Arg Glu Leu Glu Asp Val Leu 75 Tyr Ser Ser Leu Glu Glu Tyr Asn Arg Met Thr Lys Met Val Ser Asp Met Leu Phe Leu Ala Gln Ala Asp Asn Asn Gln Leu Ile Pro Asp Arg 105 100 110 Val Met Phe Asp Leu Arg Ala Glu Val Met Lys Val Phe Glu Phe Phe 120 Glu Ala Trp Ala Glu Glu Arg Asn Ile Thr Leu Lys Phe Asn Gly Met 135 140 Pro Cys Leu Val Glu Gly Asp Pro Gln Met Phe Arg Arg Ala Ile Asn 150 155 Asn Leu Leu Ser Asn Ala Leu Arg Tyr Thr Pro Glu Gly Gln Ala Ile 170 Thr Val Ser Ile Arg Glu Gln Glu Ser Phe Phe Asp Leu Val Ile Glu 185 Asn Pro Gly Lys Pro Ile Pro Glu Glu His Leu Ser Arg Leu Phe Asp 200 Arg Phe Tyr Arg Val Asp Pro Ser Arg Gln Arg Lys Gly Glu Gly Ser 215 Gly Ile Gly Leu Ala Ile Val Lys Ser Ile Val Glu Ala His His Gly 230 Arg Val Gln Val Glu Ser Asp Val His Ser Thr Arg Phe Ile Leu Ser 245 250 Val Pro Arg Leu Glu Lys Met Ile Pro Asp Thr Gln Cys Trp Glu 265

<210> 6089

<sup>&</sup>lt;210> 6090

<sup>&</sup>lt;211> 148

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
Pro Asp Ile Trp Gln His Leu Cys Pro Leu Gln Gly His Phe Tyr Gln
                                    10
Ile Leu Leu Gln Leu Thr Gly Ile Asn Ala Lys Arg Ile Phe Phe Met
                                25
            20
Lys Ala Arg Asn Thr Leu Phe Ala Val Leu Met Leu Ser Leu Pro Ala
                                                45
                            40
Ile Ser Ala Glu His Ser Glu Met Lys Met Thr Asp Met Ser Thr Ser
                        55
                                            60
Ala Ser Ser Gln Glu Tyr Met Ala Gly Met Lys Asp Met His Asp Lys
                    70
                                        75
Met Met Ala Ala Val Asn Glu Ser Asp Pro Asp Lys Ala Phe Ala Lys
                85
                                    90
Gly Met Val Ala His His Glu Gly Ala Ile Ala Met Ala Glu Thr Glu
                                105
Leu Lys Tyr Gly Lys Asp Pro Lys Met Arg Lys Leu Ala Gln Asp Ile
                            120
Ile Lys Ala Gln Lys Gly Glu Ile Glu Gln Met Asn Lys Trp Leu Asp
   130
                        135
Ser Gln Lys
145
<210> 6091
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 6091
Phe Arg Thr Pro Ser Ala Gly Asn Lys Asp Leu Asn Asp Lys Asp Val
                                    10
Ile Ser Leu Ser Cys Ser Lys Gln Lys Pro Phe Asp Ile Ile Ser Ala
                                25
Thr Tyr Gln Glu Gly Trp Ile Ala Leu Ser Ile Ser Gly Val Ser Gly
                            40
                                                45
Arg Gln Glu Met Asn Ile Gln Ser Pro Pro Gly Glu Ile Asn Thr Ser
                        55
Glu Pro Val Ser Val Met Glu Leu Lys Thr Pro Val Val Leu Pro Arg
                                        75
Thr Ser Leu Ile Lys Lys Trp Arg Val Ile Met Lys Asn Ile Val Leu
                85
                                    90
Ala Ser Leu Leu Gly Phe Gly Leu Ile Ser Ser Ala Trp Ala Thr Glu
                                105
            100
Thr Val Asn Ile His Glu Arg Val Asn Asn Ala Gln Ala Pro Ala His
                            120
Gln Met Gln Ser Ala Ala Pro Val Gly Ile Gln Gly Thr Ala Pro
                                            140
Arg Met Ala Gly Met Asp Gln His Glu Gln Ala Ile Ile Ala His Glu
                    150
Thr Met Thr Asn Gly Ser Ala Asp Ala His Gln Lys Met Val Glu Ser
                165
                                    170
His Gln Arg Met Met Gly Ser Gln Thr Val Ser Pro Thr Gly Pro Ser
                                185
                                                    190
Lys Ser Leu Ala Ala Met Asn Glu His Glu Arg Ala Ala Val Ala His
                            200
       195
Glu Phe Met Asn Asn Gly Gln Ser Gly Pro His Gln Ala Met Ala Glu
                        215
Ala His Arg Arg Met Leu Ser Ala Gly
                    230
<210> 6092
<211> 132
<212> PRT
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<220>

<221>UNSURE

## <213> Enterobacter cloacae

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<400> 6092
Leu Gly Arg Val Ala Cys Gly Leu Leu Leu Leu Ala Gly Cys Arg Cys
                                    10
Cys Val Gly Phe Pro Gly Gly Ala Ala Leu Arg Leu Ala Val Arg Val
            20
                                25
Arg Phe Cys Arg Cys Phe Ala Gly Arg Leu Leu Arg Ala Leu Leu Pro
        35
                            40
                                                 45
Leu Leu Pro Ser Leu Ser Val Gly Ala Gly Gly Leu Ala Pro Phe
                        55
                                             60
Phe Phe Ser Ala Cys Ala Leu Pro Phe Phe Leu Pro Ser Ser Phe
                    70
                                         75
Pro Ser Leu Pro Tyr Ser Val Tyr Thr Ile Asp Glu His Leu Asp Met
                85
                                     90
Leu Met Val Cys His His Leu Asp Pro Asp Ile Ala Glu Asp Val Ala
                                105
Phe Ala Glu Ser Arg Ile Arg Arg Glu Thr Ile Ala Ala Glu Asp Val
                            120
        115
Leu His Asp Ile
    130
<210> 6093
<211> 256
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(45)
<220>
<221>UNSURE
<222>(46)
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<221>UNSURE
<222>(47)
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<221>UNSURE
<222>(48)
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<221>UNSURE
<222>(50)
<220>
<221>UNSURE
<222>(51)
<220>
<221>UNSURE
<222>(52)
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<222>(53)
<220>
<221>UNSURE
<222>(54)
<220>
<221>UNSURE
<222>(55)
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<221>UNSURE
<222>(56)
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<221>UNSURE
<222>(57)
<220>
<221>UNSURE
<222>(58)
<400> 6093
Arg Tyr Arg Thr Pro Leu Pro Ala Leu Pro Arg Thr Tyr Gln Tyr Ala
                                     10
Arg Pro Leu Phe Leu His Ala Gly Arg Thr Gly Asp Gln Arg Thr Ser
Glu Thr Ile Lys Arg Gly Val Arg Gly Arg Lys Arg Xaa Xaa Xaa
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Leu Ala Ala Pro Gly Ser
                        55
Arg Ser Met Gln Glu Trp Arg Pro Ala Arg Arg Arg Arg Ala His Arg
                    70
                                         75
Ala Arg Phe Val Val Gln Thr Tyr Val Gly Pro Phe Glu Phe Gly Leu
                                     90
Asp Ser Val Thr Leu Leu Pro Tyr Ser Cys Thr Glu Ser Ser Asp Met
                                105
Glu Asn Asn Leu Glu Asn Leu Thr Ile Gly Val Phe Ala Lys Ala Ala
                            120
                                                 125
Gly Val Asn Val Glu Thr Ile Arg Phe Tyr Gln Arg Lys Gly Leu Leu
                        135
                                             140
Arg Glu Pro Asp Lys Pro Tyr Gly Ser Ile Arg Arg Tyr Gly Glu Ala
                    150
                                         155
Asp Val Val Arg Val Lys Phe Val Lys Ser Ala Gln Arg Leu Gly Phe
                                    170
                165
                                                         175
Ser Leu Asp Glu Ile Ala Glu Leu Leu Arg Leu Asp Asp Gly Thr His
            180
                                185
                                                     190
Cys Glu Glu Ala Ser Ser Leu Ala Glu His Lys Leu Lys Asp Val Arg
        195
                            200
                                                 205
Glu Lys Met Ala Asp Leu Ala Arg Met Glu Thr Val Leu Ser Glu Leu
    210
                        215
                                            220
Val Cys Ala Cys His Ala Arg Lys Gly Asn Val Ser Cys Pro Leu Ile
                    230
                                        235
Ala Ser Leu Gln Gly Glu Ala Gly Leu Ala Arg Ser Ala Met Pro
<210> 6094
<211> 117
<212> PRT
<213> Enterobacter cloacae
```

<221>UNSURE

```
<400> 6094
Ala Phe Ile Arg Arg Thr Ile Met Glu Asn Ile Ala Leu Ile Gly Ile
                                     10
Asp Leu Gly Lys Asn Ser Phe His Ile His Cys Gln Asp Arg Arg Gly
            20
                                 25
Lys Ala Val Tyr Arg Lys Lys Phe Thr Arg Pro Lys Leu Ile Glu Phe
                             40
Leu Ala Thr Cys Pro Ala Thr Thr Ile Ala Met Glu Ala Cys Gly Gly
                         55
Ser His Phe Met Ala Arg Lys Leu Glu Glu Leu Gly His Phe Pro Lys
                    70
                                                              80
                                         75
Leu Ile Ser Pro Gln Phe Val Arg Pro Phe Val Asn Tyr Ile Lys Asn
                                                          95
                                     90
                85
Asp Phe Val Asp Ala Glu Ala Ile Cys Glu Ala Ala Ser Arg Pro Ser
            100
                                 105
                                                      110
Met Arg Phe Val His
        115
<210> 6095
<211> 1074
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(1060)
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<222>(1061)
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<222>(1066)
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<222>(1067)
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<221>UNSURE
<222>(1068)
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<222>(1069)
<220>
<221>UNSURE
<222>(1070)
<220>
<221>UNSURE
<222>(1071)
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<221>UNSURE
<222>(1072)
<400> 6095
Pro Lys Ser Arg Ile Lys Met Tyr Leu Lys Ser Asn Ile Gly Gln Leu
                                    10
Met Ser Ile Ile Thr Asn Leu Arg Phe Asn Arg His Ile Asn Val Thr
Val Leu Arg Cys Pro Ile Ile Tyr Asn Ile Ser Tyr Gly Trp Lys Asn
                            40
Val Thr Lys Cys Pro Ser Gly Arg Glu Ala Asp Met Pro Val Asp Phe
                        5.5
Leu Thr Thr Glu Gln Thr Glu Ser Tyr Gly Arg Phe Thr Gly Glu Pro
                    70
                                        75
Asp Glu Leu Gln Leu Ala Arg Tyr Phe His Leu Asp Glu Ala Asp Lys
                                     90
Glu Phe Ile Gly Lys Ser Arg Gly Asp His Asn Arg Leu Gly Ile Ala
                                105
            100
Leu Gln Ile Gly Cys Val Arg Phe Leu Gly Thr Phe Leu Thr Asp Met
                            120
Asn His Ile Pro Ser Gly Val Arg His Phe Thr Ala Arg Gln Leu Gly
                        135
Ile Arg Asp Ile Thr Val Leu Ala Glu Tyr Gly Gln Arg Glu Asn Thr
                                        155
                    150
Arg Arg Glu His Ala Ala Leu Ile Arg Gln His Tyr Gln Tyr Arg Glu
                                     170
                165
Phe Ala Trp Pro Trp Thr Phe Arg Leu Thr Arg Leu Leu Tyr Thr Arg
            180
                                185
Ser Trp Ile Ser Asn Glu Arg Pro Gly Leu Leu Phe Asp Leu Ala Thr
                            200
                                                 205
Gly Trp Leu Met Gln His Arg Ile Ile Leu Pro Gly Ala Thr Thr Leu
                        215
                                             220
Thr Arg Leu Ile Ser Glu Val Arg Glu Lys Ala Thr Leu Arg Leu Trp
                    230
                                         235
Asn Lys Leu Ala Leu Ile Pro Ser Ala Glu Gln Arg Ser Gln Leu Glu
Met Leu Gly Pro Thr Asp Cys Ser Arg Leu Ser Leu Leu Glu Ser
Leu Lys Lys Gly Pro Val Thr Ile Ser Gly Pro Ala Phe Asn Glu Ala
                            280
Ile Glu Arg Trp Lys Thr Leu Asn Asp Phe Gly Leu His Ala Glu Asn
                                             300
                        295
Leu Ser Thr Leu Pro Ala Val Arg Leu Lys Asn Leu Ala Arg Tyr Ala
                    310
                                        315
Gly Met Thr Ser Val Phe Asn Ile Ala Arg Met Ser Pro Gln Lys Arg
                                     330
                325
Met Ala Val Leu Val Ala Phe Val Leu Ala Trp Glu Thr Leu Ala Leu
                                345
                                                     350
Asp Asp Ala Leu Asp Val Leu Asp Ala Met Leu Ala Val Ile Ile Arg
                            360
```

Asp Ala Arg Lys Ile Gly Gln Lys Lys Arg Leu Arg Ser Leu Lys Asp 375 380 Leu Asp Lys Ser Ala Leu Ala Leu Ala Ser Ala Cys Ser Tyr Leu Leu 390 395 Lys Glu Glu Thr Pro Asp Glu Ser Ile Arg Ala Glu Val Phe Ser Tyr 405 410 Ile Pro Arg Gln Lys Leu Ala Glu Ile Ile Thr Leu Val Arg Glu Ile 420 425 430 Ala Arg Pro Ser Asp Asp Asn Phe His Glu Glu Met Val Glu Gln Tyr 440 445 Gly Arg Val Arg Arg Phe Leu Pro His Leu Leu Asn Thr Val Lys Phe 455 460 Ser Ser Ala Pro Ala Gly Val Thr Thr Leu Asn Ala Cys Asp Tyr Leu 470 475 Ser Arg Glu Phe Ser Ser Arg Arg Gln Phe Phe Asp Asp Ala Pro Thr 485 490 Glu Ile Ile Ser Arg Ser Trp Lys Arg Leu Val Ile Asn Lys Glu Lys 505 His Ile Thr Arg Arg Gly Tyr Thr Leu Cys Phe Leu Ser Lys Leu Gln 520 Asp Ser Leu Arg Arg Asp Val Tyr Val Thr Gly Ser Asn Arg Trp 535 540 Gly Asp Pro Arg Ala Arg Leu Leu Gln Gly Ala Asp Trp Gln Ala Asn 550 555 Arg Ile Lys Val Tyr Arg Ser Leu Gly His Pro Thr Asp Pro Gln Glu 570 565 Ala Ile Lys Ser Leu Gly His Gln Leu Asp Ser Arg Tyr Arg Gln Val 585 Ala Ala Arg Leu Cys Glu Asn Glu Ala Val Glu Leu Asp Val Ser Gly 600 Pro Lys Pro Arg Leu Thr Ile Ser Pro Leu Ala Ser Leu Asp Glu Pro 615 620 Asp Ser Leu Lys Arg Leu Ser Lys Met Ile Ser Asp Leu Leu Pro Pro 630 635 Val Asp Leu Thr Glu Leu Leu Glu Ile Asn Ala His Thr Gly Phe 645 650 Ala Asp Glu Phe Phe His Ala Ser Glu Ala Ser Ala Arg Val Asp Asp 665 660 Leu Pro Val Ser Ile Ser Ala Val Leu Met Ala Glu Ala Cys Asn Ile 680 Gly Leu Glu Pro Leu Ile Arg Ser Asn Val Pro Ala Leu Thr Arg His 695 700 Arg Leu Asn Trp Thr Lys Ala Asn Tyr Leu Arg Ala Glu Thr Ile Thr 710 715 Ser Ala Asn Ala Arg Leu Val Asp Phe Gln Ala Thr Leu Pro Leu Ala 730 725 Gln Ile Trp Gly Gly Gly Glu Val Ala Ser Ala Asp Gly Met Arg Phe 740 745 Val Thr Pro Val Arg Thr Ile Asn Ala Gly Pro Asn Arg Lys Tyr Phe 760 765 Gly Asn Asn Arg Gly Ile Thr Trp Tyr Asn Phe Val Ser Asp Gln Tyr 775 780 Ser Gly Phe His Gly Ile Val Ile Pro Gly Thr Leu Arg Asp Ser Ile 790 795 Phe Val Leu Glu Gly Leu Leu Glu Gln Glu Thr Gly Leu Asn Pro Thr 810 Glu Ile Met Thr Asp Thr Ala Gly Ala Ser Glu Leu Val Phe Gly Leu 825 Phe Trp Leu Leu Gly Tyr Gln Phe Ser Pro Arg Leu Ala Asp Ala Gly 840 Ala Ser Val Phe Trp Arg Met Asp His Asp Ala Asp Tyr Gly Val Leu

<400> 6097

```
855
                                         860
Asn Asp Ile Ala Arg Gly Gln Ser Asp Pro Arg Lys Ile Val Leu Gln
                            875
                 870
Trp Asp Glu Met Ile Arg Thr Ala Gly Ser Leu Lys Leu Gly Lys Val
                                890
              885
Gln Val Ser Val Leu Val Arg Ser Leu Leu Lys Ser Glu Arg Pro Ser
                             905
Gly Leu Thr Gln Ala Ile Ile Glu Val Gly Arg Ile Asn Lys Thr Leu
                          920
                                             925
Tyr Leu Leu Asn Tyr Ile Asp Asp Glu Asp Tyr Arg Arg Ile Leu
                      935
                                         940
Thr Gln Leu Asn Arg Gly Glu Ser Arg His Ala Val Ala Arg Ala Ile
                  ·950
                                      955
Cys His Gly Gln Lys Gly Glu Ile Arg Lys Arg Tyr Thr Asp Gly Gln
                                  970
Glu Asp Gln Leu Gly Thr Leu Gly Leu Val Thr Asn Ala Val Val Leu
                              985
Trp Asn Thr Ile Tyr Met Gln Ala Ala Leu Asp His Leu Arg Ala Gln
                          1000
Gly Glu Thr Leu Asn Asp Glu Asp Ile Ala Arg Leu Ser Pro Leu Cys
                      1015
                                         1020
His Gly His Ile Asn Met Leu Gly His Tyr Ser Phe Thr Leu Ala Glu
                  1030
                                      1035
Leu Val Thr Lys Gly His Leu Arg Pro Leu Lys Glu Ala Ser Glu Ala
               1045
                                  1050
1060
                   . 1065
Tyr
<210> 6096
<211> 133
<212> PRT
<213> Enterobacter cloacae
<400> 6096
Arg Asp Gln Arg Ala Gly Asn Ile Pro Leu Ser Cys Met Ala Gly Ala
                                  10
His Glu Phe Arg Gln His Gly Phe His Ala Arg Gln Val Gly His Leu
           20
                              25
Leu Ala His Val Leu Glu Leu Val Phe Gly Gln Ala Ala Gly Leu Leu
                          40
Ala Val Gly Ala Ile Val Glu Pro Gln Gln Leu Gly Asn Leu Val Gln
                      55
                                          60
Thr Glu Pro Gln Pro Leu Cys Arg Phe His Glu Phe His Pro Asn His
                   70
                                    • 75
Val Arg Leu Pro Ile Ala Ala Asp Ala Ala Val Arg Leu Val Arg Phe
Pro Gln Gln Ala Leu Ala Leu Ile Glu Ala Asp Cys Leu His Val Asp
                              105
Pro Gly Arg Leu Gly Lys Asn Ala Asn Gly Gln Val Phe Gln Ile Ile
       115
                          120
Phe His Ile Ala
   130
<210> 6097
<211> 146
<212> PRT
<213> Enterobacter cloacae
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```
Arg Ala Arg Phe Phe Arg Arg Thr Ala Gly Ser Val Leu Arg Phe Ser
                                    10
Ala Cys Arg Pro Lys Ser Phe Arg Val Phe Gln Arg Ser Ile Ala Ser
                                25
Leu Asn Ala Gly Pro Leu Met Val Thr Gly Pro Phe Phe Ser Asp Ser
                            40
Ser Lys Asp Arg Arg Leu Gln Ser Val Gly Pro Ser Ser Ile Ser Ser
                        55
Cys Glu Arg Cys Ser Ala Asp Gly Ile Ser Ala Ser Leu Phe His Arg
Arg Asn Val Ala Phe Ser Leu Thr Ser Glu Ile Asn Arg Val Ser Val
                85
                                    90
Val Ala Pro Gly Arg Ile Ile Arg Cys Cys Ile Ser His Pro Val Ala
                                105
            100
Arg Ser Lys Ser Arg Pro Gly Arg Ser Leu Leu Ile Gln Leu Arg Val
        115
                            120
Tyr Lys Arg Arg Val Arg Arg Asn Val Gln Gly Gln Ala Asn Ser Arg
                        135
Tyr
145
<210> 6098
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 6098
Ile Ile Gly His Arg Lys Thr Val Thr Leu Ile Cys Leu Leu Asn Arg
Lys Phe Val Ile Ile Asp Met Ser Cys Pro Ile Phe Asp Leu Arg Tyr
                                25
Ile Phe Met Arg Leu Phe Gly Tyr Ala Arg Val Ser Thr Ser Gln Gln
                            40
Ser Leu Asp Leu Gln Val Arg Ala Leu Lys Asp Ala Gly Val Lys Ala
Asn Arg Ile Phe Thr Asp Lys Ala Ser Gly Ser Ser Thr Asp Arg Glu
                    70
                                        75
Gly Leu Asp Leu Leu Arg Met Lys Val Glu Glu Gly Asp Val Ile Leu
Val Lys Lys Leu Asp Arg Leu Gly Arg Asp Thr Ala Asp Met Ile Gln
                                105
Leu Ile Lys Glu Phe Asp Ala Gln Gly Val Ala Val Arg Phe Ile Asp
        115
                            120
                                                125
Asp Gly Ile Ser Thr Asp Gly Asp Met Gly Gln Met Val Val Thr Ile
                        135
                                            140
Leu Ser Ala Val Ala Gln Ala Glu Arg Arg Ile Leu Glu Arg Thr
                    150
                                        155
Asn Glu Gly Arg Gln Glu Ala Lys Leu Lys Gly Ile Lys Phe Gly Gly
                165
                                    170
Pro Arg Gln Ala Tyr Arg Gly Gln Glu Arg Arg Ala Asp Ala Ser Ser
                                185
Glu Gly His Trp Cys Asn Gly Asn Cys Ser Ser Ala Gln Tyr Cys Pro
                            200
       195
Leu His Gly Leu
   210
<210> 6099
<211> 99
<212> PRT
<213> Enterobacter cloacae
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```
<400> 6099
Gly Ile Ala Asp Leu Ala Arq Pro Ala Ser Pro Cys Ser Asp Ala Ile
Asn Gly Gln Glu Thr Phe Pro Phe Arg Ala Trp Gln Ala His Thr Ser
                                25
Ser Asp Ser Thr Val Ser Met Arg Ala Lys Ser Ala Ile Phe Ser Arg
                            40
Thr Ser Leu Ser Leu Cys Ser Ala Arg Leu Leu Ala Ser Ser Gln Trp
                        55
Val Pro Ser Ser Ser Arg Asn Ser Ser Ala Ile Ser Ser Arg Leu Asn
                                        75
                    70
Pro Ser Arg Cys Ala Asp Phe Thr Asn Phe Thr Arg Thr Thr Ser Ala
Ser Pro
<210> 6100
<211> 234
<212> PRT
<213> Enterobacter cloacae
<400> 6100
Leu Arg Leu Ala Asp Asn Pro Ser Ile Arg Leu Gln Ser Val Gln Gln
                                    10
Val Phe Ser Ile Leu Asn Gln Glu Thr Glu Met Ser Tyr Ser Gly Glu
                                25
Arg Asp Asn Phe Ala Pro His Met Ala Leu Val Pro Met Val Ile Glu
Gln Thr Ser Arg Gly Glu Arg Ser Phe Asp Ile Tyr Ser Arg Leu Leu
Lys Glu Arg Val Ile Phe Leu Thr Gly Gln Val Glu Asp His Met Ala
Asn Leu Ile Val Ala Gln Met Leu Phe Leu Glu Ala Glu Asn Pro Glu
                85
Lys Asp Ile Tyr Leu Tyr Ile Asn Ser Pro Gly Gly Val Ile Thr Ala
            100
                                105
Gly Met Ser Ile Tyr Asp Thr Met Gln Phe Ile Lys Pro Asp Val Ser
                            120
                                                125
Thr Ile Cys Met Gly Gln Ala Ala Ser Met Gly Ala Phe Leu Leu Thr
                                            140
                        135
Ala Gly Ala Lys Gly Lys Arg Phe Cys Leu Pro Asn Ser Arg Val Met
                    150
                                        155
Ile His Gln Pro Leu Gly Gly Tyr Gln Gly Gln Ala Thr Asp Ile Glu
                                    170
                165
Ile His Ala Arg Glu Ile Leu Lys Val Lys Ala Arg Met Asn Glu Leu
            180
                                185
Met Ala Gln His Thr Gly Gln Pro Leu Glu Gln Ile Glu Arg Asp Thr
                            200
                                                205
Glu Arg Asp Arg Phe Leu Ser Ala Pro Glu Ala Val Glu Tyr Gly Leu
                        215
Val Asp Ser Ile Leu Thr His Arg Asn
                    230
<210> 6101
<211> 444
<212> PRT
<213> Enterobacter cloacae
<400> 6101
Glu Trp His Leu Arg Arg His Val Arg His Ile Glu Leu Lys Lys Arg
```

Phe Gly Leu Met Thr Asp Lys Arg Lys Asp Gly Ser Gly Lys Leu Leu 25 Tyr Cys Ser Phe Cys Gly Lys Ser Gln His Glu Val Arg Lys Leu Ile 40 Ala Gly Pro Ser Val Tyr Ile Cys Asp Glu Cys Val Asp Leu Cys Asn 60 55 Asp Ile Ile Arg Glu Glu Ile Lys Glu Val Ala Pro His Arg Glu Arg 70 75 Ser Ala Leu Pro Thr Pro His Glu Ile Arg His His Leu Asp Asp Tyr 90 85 Val Ile Gly Gln Glu Gln Ala Lys Lys Val Leu Ala Val Ala Val Tyr 100 105 Asn His Tyr Lys Arg Leu Arg Asn Gly Asp Thr Ser Asn Gly Val Glu 120 125 Leu Gly Lys Ser Asn Ile Leu Leu Ile Gly Pro Thr Gly Ser Gly Lys 135 140 Thr Leu Leu Ala Glu Thr Leu Ala Arg Leu Leu Asp Val Pro Phe Thr 150 155 Met Ala Asp Ala Thr Thr Leu Thr Glu Ala Gly Tyr Val Gly Glu Asp 165 170 Val Glu Asn Ile Ile Gln Lys Leu Leu Gln Lys Cys Asp Tyr Asp Val 180 185 Gln Lys Ala Gln Arg Gly Ile Val Tyr Ile Asp Glu Ile Asp Lys Ile 200 205 195 Ser Arg Lys Ser Asp Asn Pro Ser Ile Thr Arg Asp Val Ser Gly Glu 215 220 Gly Val Gln Gln Ala Leu Leu Lys Leu Ile Glu Gly Thr Val Ala Ala 230 235 Val Pro Pro Gln Gly Gly Arg Lys His Pro Gln Gln Glu Phe Leu Gln 245 250 Val Asp Thr Ser Lys Ile Leu Phe Ile Cys Gly Gly Ala Phe Ala Gly 260 265 Leu Asp Lys Val Ile Ser His Arg Val Glu Thr Gly Ser Gly Ile Gly 280 275 Phe Gly Ala Thr Val Lys Ala Thr Ser Glu Lys Pro Asn Glu Gly Gln 300 295 Leu Leu Ala Gln Val Glu Pro Glu Asp Leu Ile Lys Phe Gly Leu Ile 310 315 Pro Glu Phe Ile Gly Arg Leu Pro Val Val Ala Thr Leu Asn Glu Leu 330 325 Ser Glu Asp Ala Leu Ile Gln Ile Leu Lys Glu Pro Lys Asn Ala Leu 345 350 340 Thr Lys Gln Tyr Gln Ala Leu Phe Asn Leu Glu Gly Val Glu Leu Glu 360 365 Phe Arg Asp Glu Ala Leu Asp Ala Ile Ala Lys Lys Ala Met Ala Arg 375 380 Lys Thr Gly Ala Arg Gly Leu Arg Ser Ile Val Glu Ala Ala Leu Leu 390 395 Asp Thr Met Tyr Asp Leu Pro Ser Met Glu Asp Val Glu Lys Val Val 410 Ile Asp Glu Ser Val Ile Gly Gly Gln Thr Lys Pro Leu Leu Ile Tyr 420 425 Gly Lys Pro Glu Ala Gln Gln Ala Ser Gly Glu 435

<sup>&</sup>lt;210> 6102

<sup>&</sup>lt;211> 565

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Pro Val Tyr Leu Ala Asp Thr Lys Leu Arg Glu Ser Ser Met Asn Pro 10 Glu Arg Ser Glu Arg Ile Glu Ile Pro Val Leu Pro Leu Arg Asp Val 25 Val Val Tyr Pro His Met Val Ile Pro Leu Phe Val Gly Arg Glu Lys 40 Ser Ile Arg Cys Leu Glu Ala Ala Met Asp His Asp Lys Lys Ile Met 55 Leu Val Ala Gln Lys Glu Ala Ser Thr Asp Glu Pro Gly Val Asn Asp 70 75 Leu Phe Thr Val Gly Thr Val Ala Ser Ile Leu Gln Met Leu Lys Leu 85 90 Pro Asp Gly Thr Val Lys Val Leu Val Glu Gly Leu Gln Arg Ala Arg 100 105 Ile Thr Thr Leu Ser Asp Asp Gly Glu His Phe Ser Ala Lys Ala Glu 120 Tyr Leu Asp Ser Pro Glu Leu Asp Glu Arg Glu Gln Glu Val Leu Val 135 140 Arg Thr Ala Ile Ser Gln Phe Glu Gly Tyr Ile Lys Leu Asn Lys Lys 150 155 Ile Pro Pro Glu Val Leu Thr Ser Leu Asn Ser Ile Asp Asp Pro Ala 170 Arg Leu Ala Asp Thr Ile Ala Ala His Met Pro Leu Lys Leu Ala Asp 185 Lys Gln Ser Val Leu Glu Met Ser Asp Val Asn Glu Arg Leu Glu Tyr 200 Leu Met Ala Met Met Glu Ser Glu Ile Asp Leu Leu Gln Val Glu Lys 215 220 Arg Ile Arg Asn Arg Val Lys Lys Gln Met Glu Lys Ser Gln Arg Glu 230 235 Tyr Tyr Leu Asn Glu Gln Met Lys Ala Ile Gln Lys Glu Leu Gly Glu 245 250 Met Asp Asp Ala Pro Asp Glu Asn Glu Ala Leu Lys Arg Lys Ile Asp 265 270 Ala Ala Lys Met Pro Lys Glu Ala Lys Glu Lys Ala Glu Ala Glu Leu 280 285 Gln Lys Leu Lys Met Met Ser Pro Met Ser Ala Glu Ala Thr Val Val 295 300 Arg Gly Tyr Ile Glu Trp Met Val Gln Val Pro Trp Asn Ala Arg Ser 310 315 Lys Val Lys Lys Asp Leu Arg Gln Ala Gln Glu Ile Leu Asp Thr Asp 330 325 His Tyr Gly Leu Glu Arg Val Lys Asp Arg Ile Leu Glu Tyr Leu Ala 340 345 350 Val Gln Ser Arg Val Asn Lys Ile Lys Gly Pro Ile Leu Cys Leu Val 360 365 Gly Pro Pro Gly Val Gly Lys Thr Ser Leu Gly Gln Ser Ile Ala Lys 375 380 Ala Thr Gly Arg Lys Tyr Ile Arg Met Ala Leu Gly Gly Val Arg Asp 390 395 Glu Ala Glu Ile Arg Gly His Arg Arg Thr Tyr Ile Gly Ser Met Pro 410 Gly Lys Leu Ile Gln Lys Met Ala Lys Val Gly Val Lys Asn Pro Leu 425 430 Phe Leu Leu Asp Glu Ile Asp Lys Met Ser Ser Asp Met Arg Gly Asp 435 440 445 Pro Ala Ser Ala Leu Leu Glu Val Leu Asp Pro Glu Gln Asn Val Ala 455 460 Phe Ser Asp His Tyr Leu Glu Val Asp Tyr Asp Leu Ser Asp Val Met 470 475 Phe Val Ala Thr Ser Asn Ser Met Asn Ile Pro Ala Pro Leu Leu Asp

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485
                                    490
Arg Met Glu Val Ile Arg Leu Ser Gly Tyr Thr Glu Asp Glu Lys Leu
                                505
Asn Ile Ala Lys Gln His Leu Leu Pro Lys Gln Ile Glu Arg Asn Ala
                            520
                                                525
Leu Lys Ala Asn Glu Leu Thr Val Glu Asp Ser Ala Ile Val Gly Ile
                       535
                                            540
Ile Arg Tyr Tyr Thr Arg Glu Ala Gly Gly Leu His His Gly Ala Gly
                    550
                                        555
Arg Ile Arg Pro
                565
<210> 6103
<211> 75
<212> PRT
<213> Enterobacter cloacae
<400> 6103
Ile Ser Asn Gly Leu Val Trp Pro Pro Met Thr Asp Ser Ser Ile Thr
                                    10
Thr Phe Ser Thr Ser Ser Ile Glu Gly Arg Ser Tyr Ile Val Ser Ser
                                25
            20
Asn Ala Ala Ser Thr Ile Glu Arg Arg Pro Arg Ala Pro Val Leu Arg
        35
                            40
Ala Ile Ala Phe Leu Ala Ile Ala Ser Asn Ala Ser Ser Arg Asn Ser
                        55
Ser Ser Thr Pro Ser Arg Leu Asn Ser Ala
                    70
<210> 6104
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 6104
Ile Asn Ala Ser Ser Leu Ser Ser Phe Arg Val Ala Thr Thr Gly Arg
                                    10
Arg Pro Ile Asn Ser Gly Ile Lys Pro Asn Leu Ile Arg Ser Ser Gly
                                25
Ser Thr Cys Ala Ser Ser Trp Pro Ser Phe Gly Phe Ser Asp Val Ala
                            40
Phe Thr Val Ala Pro Lys Pro Met Pro Glu Pro Val Ser Thr Arg
<210> 6105
<211> 161
<212> PRT
<213> Enterobacter cloacae
<400> 6105
Asp Asp Arg Gly Gly Pro Leu His Lys Arg Gly Leu Arg Pro Leu Gly
Ala Leu Pro Ala His Ala Thr Ser Val Leu Leu Asn Met Leu Leu Cys
                                25
Ser Arg Pro Gly Lys Pro Gly Phe Val Phe Cys Ala Phe Tyr Pro Leu
                            40
Phe Pro Gly Glu Arg Val Arg Val Arg Gly Ser Gly Arg Thr Glu Leu
                        55
                                            60
His Ile Ala Pro Gly Gly Ile Asp Ser Leu Arg Ser Pro Cys Gly Gln
                                        75
Pro Val Arg Tyr Ala Leu Ser Leu Ser Asn Trp Leu Arg Gln Leu Ser
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85 90 Asn Pro Gly Arg Gly Phe Ser Phe Pro Ala Lys Ala Tyr Asn Met Arg 100 105 Lys Lys Ser Pro His Phe His Ala Ser Ser Ser Ser Asn Met Ala Val 120 125 Arg Gly Gly Phe Glu Pro Pro Ile Arg Cys Arg Ile His Thr Phe Gln 135 Ala Cys Ser Phe Ser His Ser Asp Thr Ser Pro Tyr Cys Phe Ala Ala

<210> 6106 <211> 373 <212> PRT

<213> Enterobacter cloacae

<400> 6106 Glu Lys Thr Ala Val Val Pro Gly Ser Asp Val Asn Ser Leu Trp Arg 10 Ser Arg Met Val Ala Ser Cys Thr Gly Gln Gly Lys His Ile Asn Arg 25 Ser Thr Arg Arg Gly Gly Ser Asp Ser Gly Ser Asp Phe Phe Thr Thr 40 Lys Phe Ser Pro Ser Pro Gln Gln Pro Phe Ser Thr Asp Val His Asn 55 Gly Ala Arg Ser Arg Cys Ile Ser Ser Ser Gly Asn Ala Ser Asn Gly 70 75 Leu Gln Gly Ser Gln Pro Ser Asp Val Arg Ala His Asn Arg Ala Asp 90 Ala Gly Ala Cys Asp Glu Tyr Gln Gln Leu Lys Val Leu Ser Met Gly 105 Arg Gln Lys Ala Val Ile Lys Ala Arg Arg Glu Ala Lys Arg Val Leu 120 Arg Arg Asp Ser Arg Ser His Lys Gln Arg Glu Glu Glu Ser Val Thr 135 140 Ser Leu Val Gln Met Ser Gly Val Glu Ser Ile Gly Met Ala Arg Asp 150 155 Ser Arg Asp Ala Ser Pro Ile Val Ala Arg Asn Glu Ala Gln Ala His 165 170 Tyr Leu Asn Ala Ile Glu Ser Lys Gln Leu Ile Phe Ala Thr Gly Glu 185 190 Ala Gly Cys Gly Lys Thr Trp Ile Ser Ala Ala Lys Ala Ala Glu Ala 195 200 205 Leu Ile His Lys Asp Val Glu Arg Ile Ile Val Thr Arg Pro Val Leu 215 220 Gln Ala Asp Glu Asp Leu Gly Phe Leu Pro Gly Asp Ile Ser Glu Lys 230 235 Phe Ala Pro Tyr Phe Arg Pro Val Tyr Asp Val Leu Val Lys Arg Leu 245 250 Gly Ala Ser Phe Met Gln Tyr Cys Leu Arg Pro Glu Ile Gly Lys Val 265 Glu Ile Ala Pro Phe Ala Tyr Met Arg Gly Arg Thr Phe Glu Asn Ala 280 Val Val Ile Leu Asp Glu Ala Gln Asn Val Thr Ala Ala Gln Met Lys 295 Met Phe Leu Thr Arg Leu Gly Glu Asn Val Thr Val Ile Val Asn Gly 310 315 Asp Ile Thr Gln Cys Asp Leu Pro Ser Gly Val Lys Ser Gly Leu Ser 325 330 Asp Ala Met Ser Arg Phe Glu Glu Asp Glu Met Ile Gly Val Val Arg

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Phe Thr Lys Glu Asp Cys Val Arg Ser Ala Leu Cys Gln Arg Thr Leu
        355
                            360
Gln Ala Tyr Tyr
    370
<210> 6107
<211> 62
<212> PRT
<213> Enterobacter cloacae
<400> 6107
His Arg Gly Gly Leu Thr Arg Cys Ala Arg Pro Ala Gly Ser Leu Phe
Ala Thr Leu Ser Val Cys Pro Thr Gly Cys Ala Ser Cys Arg Thr Pro
Val Gly Gly Ser His Ser Pro Gln Arg Arg Thr Thr Cys Glu Lys Lys
Ala Arg Ile Phe Met Arg Ala Leu Leu Gln Ile Trp Arg
                        55
<210> 6108
<211> 90
<212> PRT
<213> Enterobacter cloacae
<400> 6108
Arg Leu Val Ala Ala Gly Leu Ala Ala Gly Ala Ile Arg Ala Phe His
Glu Ala Gly Leu Trp Asn His Phe Gln Asp Val Ala Phe Asp Leu Ser
                                25
Asn Val Leu Ser Thr His Ser Leu Thr Gly Thr Leu Leu Glu Gly Ile
                            40
Phe Gly Tyr Gln Glu Thr Pro Ser Val Ser Glu Val Ala Met Tyr Phe
                        55
Ile Tyr Leu Val Pro Ala Leu Ile Leu Phe Ala Met Pro Pro Arg Thr
                                        75
                    70
Gly Ser Gln Thr Ser Arg Val Ala Pro
                85
<210> 6109
<211> 385
<212> PRT
<213> Enterobacter cloacae
<400> 6109
Leu Gln His Thr Leu Lys Gly Arg Val Met Ala Ile Gln Phe Arg Arg
Ser Ala Leu Cys Ala Gly Ile Ala Ala Leu Phe Val Ser Ala Phe Ala
Ala Gln Ala Ala Asp Ile Pro Gln Val Lys Val Thr Val Asn Asp Lys
                            40
Gln Cys Glu Pro Met Thr Ile Thr Val Asn Ser Gly Lys Thr Gln Phe
Ile Ile Gln Asn His Ser Gln Lys Ala Leu Glu Trp Glu Ile Leu Lys
                                        75
Gly Val Met Val Val Glu Glu Arg Glu Asn Ile Ala Pro Gly Phe Ser
                85
Gln Lys Met Thr Ala Asn Leu Gln Pro Gly Glu Tyr Asp Met Thr Cys
                                105
Gly Leu Leu Thr Asn Pro Lys Gly Lys Leu Ile Val Lys Gly Ala Ala
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120
Thr Ala Asp Ala Ala Lys Gly Thr Ala Leu Leu Ser Leu Gly Asp Ala
                                            140
                        135
Ile Thr Ala Tyr Lys Ala Tyr Val Thr Lys Glu Thr Ala Asp Leu Val
                    150
                                       155
Ala Gly Thr Lys Ala Phe Thr Asp Ala Val Lys Ala Gly Asp Ile Glu
               165
                                   170
Lys Ala Lys Ser Leu Tyr Ala Pro Thr Arg Gln His Tyr Glu Arg Ile
                               185
            180
Glu Pro Ile Ala Glu Leu Phe Ser Asp Leu Asp Gly Ser Ile Asp Ala
                            200
                                                205
Arg Glu Asp Asp Tyr Glu Gln Lys Ala Ala Asp Pro Lys Phe Thr Gly
                        215
                                            220
Phe His Arg Leu Glu Lys Ala Leu Phe Gly Asp Asn Ser Thr Arg Gly
                    230
                                       235
Met Glu Lys Tyr Ala Glu Gln Leu Asn Ser Asp Val Leu Glu Leu Gln
                                    250
Lys Arg Ile Ser Glu Leu Ala Phe Pro Pro Ser Lys Val Val Gly Gly
                                265
Ala Ala Gly Leu Ile Glu Glu Val Ala Ala Ser Lys Ile Ser Gly Glu
                            280
Glu Asp Arg Tyr Ser His Thr Asp Leu Trp Asp Phe Gln Ala Asn Val
                        295
Asp Gly Ala Gln Lys Ile Val Asp Leu Leu Arg Pro Gln Leu Gln Lys
                    310
                                        315
Glu Asn Gly Glu Leu Leu Ala Lys Val Asp Ala Asn Phe Lys Lys Val
                325
                                    330
Asp Ala Ile Leu Ala Lys Tyr Arg Thr Lys Asp Gly Phe Glu Thr Tyr
                                345
Asp Lys Leu Thr Asp Ala Asp Arg Asn Ala Leu Lys Gly Pro Ile Thr
                            360
Thr Leu Ala Glu Asp Leu Ser Leu Leu Arg Gly Val Leu Gly Leu Asp
                        375
385
<210> 6110
<211> 429
<212> PRT
<213> Enterobacter cloacae
<400> 6110
Ala Met Asn Glu His Asp Glu Tyr Asp Val Ala Glu Pro Ser Arg Arg
                                    10
Arg Leu Leu Lys Gly Val Gly Ala Leu Gly Gly Ala Phe Ala Leu Ala
Gly Gly Cys Pro Val Ala His Ala Ala Lys Pro Gln Ser Ala Pro Gly
        35
Thr Leu Ser Pro Asp Ala Arg Met Glu Thr Gln Pro Phe Tyr Gly Glu
His Gln Ala Gly Ile Leu Thr Pro Gln Gln Ala Ser Met Met Leu Val
Ala Phe Asp Ser Leu Ala Ser Asp Lys Ala Asp Leu Glu Arg Leu Phe
Arg Leu Leu Thr Thr Arg Ile Ala Phe Leu Thr Ala Gly Gly Pro Ala
            100
                                105
                                                    110
Pro Glu Thr Pro Asn Pro Arg Leu Pro Pro Met Asp Ser Gly Ile Leu
                            120
                                                125
Gly Ala Phe Ile Ala Pro Asp Asn Leu Thr Ile Thr Val Ser Val Gly
                        135
                                            140
Glu Ser Leu Phe Asp Asp Arg Tyr Gly Leu Ala Lys Gln Lys Pro Lys
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145
                   150
                                      155
Ala Leu Gln Lys Met Thr Arg Phe Pro Asn Asp Ser Leu Asp Ala Ala
               165
                            170
Leu Cys His Gly Asp Leu Leu Gln Ile Cys Ala Asn Thr Gln Asp
                    185
           180
Thr Val Ile His Ala Leu Arg Asp Ile Ile Lys His Thr Pro Asp Leu
             . 200
                                              205
Leu Ser Val Arg Trp Lys Arg Glu Gly Phe Ile Ser Asp His Ala Ala
                      215
                                          220
Arg Ser Lys Gly Lys Glu Thr Pro Val Asn Leu Leu Gly Phe Lys Asp
                   230
                                      235
Gly Thr Ala Asn Pro Asp Ser Ser Asn Thr Ala Leu Met Asn Lys Val
                                   250
Val Trp Val Thr Ala Asp Gln Gly Glu Pro Ala Trp Ala Val Gly Gly
                              265
Ser Tyr Gln Ala Val Arg Ile Ile Gln Phe His Val Glu Phe Trp Asp
                           280
Arg Thr Pro Leu Lys Glu Gln Gln Thr Ile Phe Gly Arg Asp Lys Gln
                       295
                                           300
Thr Gly Ala Pro Leu Gly Met Lys Leu Glu His Asp Glu Pro Asp Tyr
                   310
                                       315
Ala Arg Asp Pro Asn Gly Asp Val Ile Ala Leu Asp Ser His Ile Arg
                                   330
               325
Leu Ala Asn Pro Arg Thr Lys Glu Thr Gln Ser Ser Leu Met Met Arg
                               345
           340
Arg Gly Tyr Ser Tyr Ser Leu Gly Val Thr Asn Ser Gly Gln Leu Asp
                           360
                                               365
Met Gly Leu Leu Phe Val Cys Tyr Gln His Asp Leu Glu Lys Gly Phe
                       375
                                           380
Leu Thr Val Gln Lys Arg Leu Asn Gly Glu Ala Leu Glu Glu Tyr Ile
                                       395
                   390
Lys Pro Ile Gly Gly Tyr Phe Phe Ala Leu Pro Gly Ala Arg Asp
               405
                                   410
Ala Asn Ala Trp Leu Ala Gln Gly Leu Ile Glu Ala
            420
<210> 6111
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 6111
Leu Ala Ala Leu Ala Leu Arg Ala Ala Cys Ser Leu Arg Ser Gln Ser
                                   10
Val Gln Leu Ala Ala Pro Val Val Glu Pro Arg Ser Gly Val Leu Ile
                               2.5
Pro Arg Lys Gly Val Gln His Ala Lys Lys Pro Ala Phe Ser Cys
Glu Leu Phe Phe Lys Tyr Gly Gly Glu Gly Gly Ile Arg Thr Pro Asp
                       55
Thr Leu Pro Tyr Thr His Phe Pro Gly Val Leu Leu Gln Pro Leu Gly
                                       75
His Leu Thr Ile Leu Phe Cys Cys Leu Thr Ala Trp Gly Ala Thr Gly
               85
Arg Tyr Tyr Arg Glu Leu Arg
           100
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<sup>&</sup>lt;210> 6112

<sup>&</sup>lt;211> 603

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6112 Arg Arg Gly Ile Ser Ser Ala Ala Phe Phe Cys Ser Asn Cys Pro His 10 Tyr Phe Leu Pro Gly Arg Phe Lys Gly Cys His Tyr Val Arg Leu Ile 25 Arg Ser Tyr Ala Val Ile Arg Cys Leu Arg Phe Glu Glu Ser Thr Met 40 Ser Glu Ala Glu Ala Arg Pro Ser Asn Phe Ile Arg Gln Ile Ile Asp 55 60 Glu Asp Leu Ala Ser Gly Lys His Thr Thr Val His Thr Arg Phe Pro 70 75 Pro Glu Pro Asn Gly Tyr Leu His Ile Gly His Ala Lys Ser Ile Cys 8.5 90 Leu Asn Phe Gly Ile Ala Gln Asp Tyr Gln Gly Gln Cys Asn Leu Arg 100 105 110 Phe Asp Asp Thr Asn Pro Val Lys Glu Asp Ile Glu Tyr Val Glu Ser 120 125 Ile Lys Asn Asp Val Gln Trp Leu Gly Phe Asn Trp Ser Gly Asp Ile 135 140 Cys Tyr Ser Ser Asp Tyr Phe Asp Gln Leu Tyr Ala Tyr Ala Val Glu 155 150 Leu Ile Asn Lys Gly Leu Ala Tyr Val Asp Glu Leu Ser Ala Asp Glu 170 165 Ile Arg Glu Tyr Arg Gly Thr Leu Thr Gln Pro Gly Lys Asn Ser Pro 185 180 Phe Arg Asp Arg Ser Val Glu Glu Asn Leu Ala Leu Phe Glu Lys Met 200 Arg Ala Gly Gly Phe Glu Glu Gly Lys Ala Cys Leu Arg Ala Lys Ile 215 220 Asp Met Ala Ser Pro Phe Ile Val Met Arg Asp Pro Val Leu Tyr Arg 235 230 Ile Lys Phe Ala Glu His His Gln Thr Gly Asn Lys Trp Cys Ile Tyr 245 250 Pro Met Tyr Asp Phe Thr His Cys Ile Ser Asp Ala Leu Glu Gly Ile 265 Thr His Ser Leu Cys Thr Leu Glu Phe Gln Asp Asn Arg Arg Leu Tyr 280 Asp Trp Val Leu Asp Asn Ile Thr Ile Pro Val His Pro Arg Gln Tyr 295 300 Glu Phe Ser Arg Leu Asn Leu Glu Tyr Thr Val Met Ser Lys Arg Lys 310 315 Leu Asn Leu Leu Val Thr Asp Lys His Val Glu Gly Trp Asp Asp Pro 330 325 Arg Met Pro Thr Ile Ser Gly Leu Arg Arg Gly Tyr Thr Ser Ala 345 350 Ser Ile Arg Glu Phe Cys Lys Arg Ile Gly Val Thr Lys Gln Asp Asn 360 365 Thr Ile Glu Met Ala Ser Leu Glu Ser Cys Ile Arg Glu Asp Leu Asn 375 380 Glu Asn Ala Pro Arg Ala Met Ala Val Ile Asp Pro Val Lys Leu Val 390 395 Ile Glu Asn Tyr Pro Gln Gly Gly Ser Glu Gln Val Ser Met Pro Asn 410 His Pro Asn Lys Pro Glu Met Gly Thr Arg Asp Val Pro Phe Ser Gly 425 Glu Ile Trp Ile Asp Arg Ala Asp Phe Arg Glu Glu Ala Asn Lys Gln 440 Tyr Lys Arg Leu Val Leu Gly Lys Glu Val Arg Leu Arg Asn Ala Tyr 455 Val Ile Lys Ala Glu Arg Val Glu Lys Asp Ala Glu Gly Asn Ile Thr

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470
                                        475
Thr Ile Phe Cys Thr Tyr Asp Ala Glu Thr Leu Ser Lys Asp Pro Ala
                                    490
Asp Gly Arg Lys Val Lys Gly Val Ile His Trp Val Ser Ala Gln His
                                505
Ala Leu Pro Val Glu Ile Arg Leu Tyr Asp Arg Leu Phe Ser Val Pro
                            520
Asn Pro Gly Ala Ala Glu Asp Phe Leu Ala Val Ile Asn Pro Glu Ser
                        535
                                            540
Leu Ile Ile Lys Gln Gly Tyr Ala Glu Pro Ser Leu Lys Ala Ala Glu
                    550
                                        555
Ala Gly Lys Ala Phe Gln Phe Glu Arg Glu Gly Tyr Phe Cys Leu Asp
                                    570
                565
Ser Arg Tyr Ser Thr Ala Glu Lys Pro Val Phe Asn Arg Thr Val Gly
            580
                                585
Leu Arg Asp Thr Trp Thr Lys Ile Gly Glu
<210> 6113
<211> 205
<212> PRT
<213> Enterobacter cloacae
<221>UNSURE
<222>(176)
<220>
<221>UNSURE
<222>(185)
<400> 6113
Ser Met Arg Thr Phe Ser Gly Lys Arg Ser Ala Leu Ala Leu Ala Ile
                                    10
Ala Gly Val Thr Ala Met Ser Gly Leu Val Val Ala Pro Gln Ala Lys
                                25
Ala Ala Gly Phe Ile Glu Asp Ser Thr Leu Thr Gly Gly Ile Tyr Tyr
                            40
Trp Gln Arg Glu Arg Asp Arg Lys Asp Val Thr Glu Asp Lys Tyr Lys
                        55
Thr Asn Leu Ser His Ser Thr Trp Asn Ala Asn Leu Asp Phe Gln Ser
                    70
                                        75
Gly Tyr Ala Ala Asp Met Phe Gly Ile Asp Ile Ala Ala Phe Thr Ala
                85
                                    90
Ile Glu Met Ala Glu Asn Gly Asp Ser Gly His Pro Asn Glu Ile Ala
                                105
            100
Phe Ser Ser Asn Lys Ala Tyr Asp Glu Asp Trp Ser Gly Asp Lys
                            120
                                                125
Ser Gly Ile Ser Leu Tyr Lys Ala Ala Ala Lys Phe Lys Tyr Gly Pro
                        135
                                            140
Val Trp Ala Arg Gly Ser Tyr Ile Gln Pro Thr Gly Gln Thr Leu Leu
                    150
                                        155
Ala Pro His Trp Ser Phe Met Pro Gly Thr Tyr Gln Gly Ala Glu Xaa
                                    170
Gly Ala Asn Phe Asp Tyr Gly Glu Xaa Gly Gly Val Ser Phe Ser Tyr
                               185
Met Trp Asn Asn Glu Val Thr Ser Ala Val Ala His
                            200
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<210> 6114 <211> 667 <212> PRT <213> Enterobacter cloacae

<400> 6114 Lys His Ser Leu Cys Ala Ser Leu Asn Lys Gly Ser Arg Arg Gly Asn Arg Met Asn Ile Leu Gly Phe Phe Gln Arg Leu Gly Arg Ala Leu Gln 25 Leu Pro Ile Ala Val Leu Pro Val Ala Ala Leu Leu Arg Phe Gly 40 Gln Pro Asp Leu Leu Asn Val Pro Phe Ile Ala Gln Ala Gly Gly Ala 55 Ile Phe Asp Asn Leu Ala Leu Ile Phe Ala Ile Gly Val Ala Ser Ser 75 70 Trp Ser Lys Asp Ser Ala Gly Ala Ala Ala Leu Ala Gly Ala Val Gly 85 90 Tyr Phe Ile Leu Thr Lys Ala Met Val Thr Ile Asn Pro Glu Ile Asn 100 105 Met Gly Val Leu Ala Gly Ile Ile Thr Gly Leu Val Gly Gly Ala Val 120 Tyr Asn Arg Trp Ala Gly Ile Lys Leu Pro Asp Phe Leu Ser Phe Phe 135 140 Gly Gly Lys Arg Phe Val Pro Ile Ala Thr Gly Phe Phe Cys Leu Ile 150 155 Leu Ala Ala Ile Phe Gly Tyr Val Trp Pro Pro Val Gln His Ala Ile 170 His Ala Asp Gly Glu Trp Ile Val Ser Ala Gly Ala Met Gly Ala Gly 185 Ile Phe Gly Phe Ile Asn Arg Leu Leu Ile Pro Thr Gly Leu His Gln 195 200 Val Leu Asn Thr Ile Ala Trp Phe Gln Ile Gly Glu Phe Thr Asn Ala 215 Ala Gly Ala Val Phe His Gly Asp Ile Asn Arg Phe Tyr Ala Gly Asp 230 235 Gly Thr Ala Gly Met Phe Met Ser Gly Phe Phe Pro Ile Met Met Phe 245 250 Gly Leu Pro Gly Ala Ala Leu Ala Met Tyr Leu Ala Ala Pro Lys Ala 265 Arg Arg Pro Met Val Gly Gly Met Leu Leu Ser Val Ala Ile Thr Ala 280 Phe Leu Thr Gly Val Thr Glu Pro Leu Glu Phe Leu Phe Met Phe Leu 295 300 Ala Pro Leu Leu Tyr Leu Met His Ala Ile Leu Thr Gly Ile Ser Leu 310 315 Phe Val Ala Thr Leu Leu Gly Ile His Ala Gly Phe Ser Phe Ser Ala 330 325 Gly Ala Ile Asp Tyr Val Trp Met Tyr Asn Leu Pro Ala Ala Ser Ile 345 Ser Val Trp Ile Leu Met Val Met Gly Leu Ile Phe Cys Val Ile Tyr 360 365 Phe Val Leu Phe Ser Ala Val Val Arg Met Phe Asn Leu Lys Thr Pro 375 380 Gly Arg Glu Asp Ala Lys Asp Asp Val Val Thr Ser Glu Ala Asn Ser 390 395 Asn Thr Glu Glu Gly Leu Thr Gln Leu Ala Thr Thr Tyr Ile Ala Ala 410 Val Gly Gly Thr Asp Asn Leu Lys Ala Ile Asp Ala Cys Ile Thr Arg 425 Leu Arg Leu Thr Val Gly Asp Ser Ala Arg Val Ser Asp Ala Met Cys 440 Lys Arg Leu Gly Ala Ser Gly Val Val Lys Leu Asn Lys Gln Thr Ile

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455
                                             460
Gln Val Ile Val Gly Ala Lys Ala Glu Ser Ile Gly Asp Glu Met Lys
                    470
                                        475
Lys Val Val Ala Arg Gly Pro Val Ala Ala Ala Ser Thr Asp Asn Ala
                485
                                    490
Pro Val Ala Asp Ala Pro Val Ala Lys Pro Gln Ala Val Pro Asn Ala
             500
                                 505
Val Thr Ile Ala Ala Leu Val Ser Pro Val Thr Gly Asp Val Val Ala
                             520
                                                 525
Leu Glu Gln Val Pro Asp Glu Ala Phe Ala Ser Lys Ala Val Gly Asp
                         535
                                             540
Gly Val Ala Val Lys Pro Thr Asp Lys Thr Val Val Ser Pro Ala Ala
                                         555
                     550
Gly Thr Ile Val Lys Ile Phe Asn Thr Asn His Ala Phe Cys Leu Glu
                 565
                                     570
Thr Glu Lys Gly Ala Glu Ile Val Val His Met Gly Ile Asp Thr Val
                                 585
Ala Leu Asn Gly Gln Gly Phe Thr Arg Leu Val Glu Glu Gly Ala Glu
                             600
Val Ala Ala Gly Gln Pro Ile Leu Glu Met Asp Leu Asp Phe Leu Asn.
                         615
                                             620
Ala Asn Ala Arg Ser Met Ile Ser Pro Val Val Cys Ser Asn Ile Asp
                     630
                                         635
Asp Phe Ser Gly Leu Val Ile Gln Ala Gln Gly Gln Val Val Ala Gly
                 645
                                     650
Gln Thr Pro Leu Tyr Glu Ile Lys Gly Lys
             660
<210> 6115
<211> 287
<212> PRT
<213> Enterobacter cloacae
<400> 6115
Asn Val Pro Glu Glu Asn Asn Gly Gly Asn Cys Cys Lys Lys Arg
                                     10
. Arg Arg Ile Ser Pro Ala Ala Lys Gly Ile Thr Leu Leu Arg Ser Asp
             20
                                 25
Tyr Leu Pro Leu Ile Ser Tyr Ser Gly Val Trp Pro Ala Thr Thr Cys
                             40
Pro Cys Ala Trp Ile Thr Arg Pro Leu Lys Ser Ser Met Leu Leu His
                         55
Thr Thr Gly Leu Ile Met Glu Arg Ala Leu Ala Phe Arg Lys Ser Arg
                     70
                                         75
Ser Ile Ser Arg Ile Gly Trp Pro Ala Ala Thr Ser Ala Pro Ser Ser
                                     90
Thr Arg Arg Val Lys Pro Trp Pro Phe Ser Ala Thr Val Ser Ile Pro
                                 105
Ile Trp Thr Thr Ile Ser Ala Pro Phe Ser Val Ser Arg Gln Asn Ala
                             120
                                                 125
Trp Leu Val Leu Lys Ile Phe Thr Ile Val Pro Ala Ala Gly Glu Thr
                         135
                                             140
Thr Val Leu Ser Val Gly Phe Thr Ala Thr Pro Ser Pro Thr Ala Leu
                    150
                                         155
Leu Ala Asn Ala Ser Ser Gly Thr Cys Ser Ser Ala Thr Thr Ser Pro
                                     170
                165
Val Thr Gly Glu Thr Ser Ala Ala Met Val Thr Ala Phe Gly Thr Ala
                                 185
                                                     190
Cys Gly Phe Ala Thr Gly Ala Ser Ala Thr Gly Ala Leu Ser Val Glu
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Ala Ala Ala Thr Gly Pro Arg Ala Thr Thr Phe Phe Ile Ser Ser Pro

215 220 Ile Asp Ser Ala Phe Ala Pro Thr Ile Thr Trp Met Val Cys Leu Phe 230 235 Ser Phe Thr Thr Pro Asp Ala Pro Arg Arg Leu His Ile Ala Ser Leu 245 250 Thr Arg Ala Glu Ser Pro Thr Val Arg Arg Arg Val Ile Gln Ala 265 Ser Ile Ala Phe Arg Leu Ser Val Pro Pro Thr Ala Ala Met <210> 6116 <211> 367 <212> PRT <213> Enterobacter cloacae <400> 6116 Ala Gly Asp Gly Gly Asp His Pro Gly Ser Ala Gly Cys Ala Asp Gly 10 Gly Ser Arg Pro Phe Thr Ala Leu Leu Ser Lys Ile Asn Pro His Thr 20 Ser Gln Gln Gly Lys Asp Ile Met Lys Ser Arg Ala Ala Val Ala Phe Gly Pro Gly Gln Pro Leu Lys Ile Val Glu Ile Asp Val Ala Pro Pro 55 Lys Lys Gly Glu Val Leu Ile Lys Ile Thr His Thr Gly Val Cys His 70 Thr Asp Ala Phe Thr Leu Ser Gly Asp Asp Pro Glu Gly Val Phe Pro 90 Ala Val Leu Gly His Glu Gly Gly Val Val Val Glu Val Gly Glu 100 105 Gly Val Thr Ser Leu Lys Pro Gly Asp His Val Ile Pro Leu Tyr Thr 120 Ala Glu Cys Gly Glu Cys Lys Phe Cys Lys Ser Gly Lys Thr Asn Leu 135 140 Cys Gln Ala Val Arg Ala Thr Gln Gly Lys Gly Leu Met Pro Asp Gly 150 155 Thr Thr Arg Phe Ser Tyr Asn Gly Glu Pro Ile Tyr His Tyr Met Gly 170 Thr Ser Thr Phe Ser Glu Tyr Thr Val Cys Ala Glu Ile Ser Leu Ala 185 Lys Val Asn Pro Gln Ala Pro Leu Asp Lys Val Cys Leu Leu Gly Cys 200 195 Gly Val Thr Thr Gly Ile Gly Ala Val His Asn Thr Ala Lys Val Lys 215 Glu Gly Asp Thr Val Ala Val Phe Gly Leu Gly Gly Ile Gly Leu Ala 230 235 Val Ile Gln Gly Ala Val Gln Ala Lys Ala Gly Arg Ile Ile Ala Val 245 250 Asp Thr Asn Pro Glu Lys Phe Lys Leu Ala Gly Glu Met Gly Ala Thr 265 Asp Phe Ile Asn Pro Lys Asp Tyr Asp Lys Pro Val Gln Glu Val Ile 280 285 Val Glu Leu Thr Asp Gly Gly Val Asp Phe Ser Phe Glu Cys Ile Gly 295 300 Asn Val Tyr Val Met Arg Ser Ala Leu Glu Cys Cys His Lys Gly Trp 310 315 Gly Glu Ser Ile Ile Gly Val Ala Gly Arg Gly Ser Gly Asp Gln 325 330 Asn Pro Ser Leu Pro Ser Gly Asp Arg Gly Arg Met Ala Arg Val Gly 345

Ile Trp Arg Arg Glu Arg Pro Tyr Pro Ala Ala Gly His Gly

35 40 45
Gln His Lys Leu Ser Phe Leu His His Ile Arg Leu Val Pro Leu Phe

Ser Ser Ile Leu Gly Gly Ile Ile Leu Leu Phe Ala Leu Ser Ser Gly

Leu Ala Gly Tyr Phe Leu Leu Gln Ala Asp Asn Asp Gln Gln Asp Val

60

75

55

90 Thr Ala Glu Ile Gln Val Arg Thr Gly Leu Ser Asn Ser Ser Asn His 105 Leu Arg Thr Ala Arg Ile Asn Met Ile His Ala Gly Ala Ala Ser Arg 120 Ile Ala Glu Met Glu Ala Met Lys Gln Asn Ile Ala Glu Ala Glu Thr 135 140 Arg Ile Arg Gln Ser Gln Asp Gly Phe Ala Ala Tyr Met Lys Arg Thr 150 155 Ile Arg Thr Pro Ala Asp Glu Ala Leu Asp Gly Asp Leu Lys Ala Arg 165 170 Tyr Asp Ala Tyr Ile Ala Gly Met Gln Pro Met Leu Lys Tyr Ala Lys 180 185 190 Asn Gly Met Phe Glu Ala Ile Ile Asn His Glu Asn Glu Thr Ala Arg 200 Pro Leu Asp Asp Ala Tyr Asn Ala Val Leu Leu Lys Ala Ile Lys Ile 215 220 Arg Thr Glu Arg Ala Asn Ala Leu Thr Ala Gln Ala His Thr Arg Thr 230 235 Arg Leu Gly Leu Met Phe Met Phe Gly Ala Phe Gly Leu Ala Leu Ala 245 250 Leu Ala Val Ile Thr Phe Val Val Leu Arg Arg Thr Val Ile Asn Pro 265 Leu Gln Arg Ala Ala Thr Arg Ile Glu Asn Ile Ala Lys Gly Asp Leu 280 Thr Met Pro Asp Glu Pro Thr Gly Arg Ser Glu Ile Gly Arg Leu Thr 295 Arg Asp Leu Gln Thr Met Gln His Ala Leu Val Thr Thr Val Gly Thr 310 315 Val Arg Gln Gly Ala Glu Glu Ile Tyr Arg Gly Thr Ser Glu Ile Ser 325 330 Ala Gly Asn Thr Asp Leu Ser Ser Arg Thr Glu Gln Gln Ala Ala Ala 345 340 Ile Glu Gln Thr Ala Ala Ser Met Glu Gln Leu Thr Ala Thr Val Lys 360 365 Gln Asn Ala Asp Asn Ala His His Ala Ser Lys Leu Ala Glu Asp Ala 375 380 Ser Gly Lys Ala Ser Arg Gly Gly Gln Met Val Ser Gly Val Val Lys 395 390 Thr Met Gly Asn Ile Ser Thr Ser Ser Lys Lys Ile Ser Glu Ile Thr 405 410 Ala Val Ile Asn Ser Ile Ala Phe Gln Thr Asn Ile Leu Ala Leu Asn 420 425 430 Ala Ala Val Glu Ala Ala Arg Ala Gly Glu Gln Gly Arg Gly Phe Ala 440 Val Val Ala Ser Glu Val Arg Thr Leu Ala Ser Arg Ser Ala Asn Ala 455 460 Ala Lys Glu Ile Glu Ser Leu Ile Asn Glu Ser Val Ser Leu Ile Asp 470 475 Gln Gly Ser Gly Glu Val Val Ala Ala Gly Asn Thr Met Asn Glu Ile 490 Val Glu Ala Val Lys Arg Val Thr Asp Ile Met Ser Ser Ala Arg Gly 505 Gly Ser Thr Glu Ser 515 <210> 6120

<211> 167

<212> PRT

<213> Enterobacter cloacae

```
<400> 6120
Lys Asp Phe Leu Leu Pro Pro Asn Cys Pro Gln Ser Val Phe Cys Pro
Gln Ile Cys Pro Arg Asn Leu Leu Phe Cys Val Ala Pro Ser Ser Phe
Glu Ser His Leu Phe Thr Gln Phe Arg Leu Ile Ser Ile Ile Ala Thr
                                                 4.5
Asn Pro Phe Val Arg Leu Asn Gln Arg Ala Leu Leu Phe Pro Thr Asn
Leu Tyr Phe Gln Ser Asp Thr Arg Leu Glu Val Ser Met Cys Gly Arg
                    70
Phe Ala Gln Ala Gln Thr Arg Glu Glu Tyr Leu Ala Tyr Phe Ala Asp
                                    90
Glu Ala Val Arg Asp Ile Ala Tyr Asp Pro Glu Pro Ile Gly Arg Tyr
            100
                                 105
Asn Val Ala Pro Gly Ser Lys Val Leu Leu Ser Glu His Asp Glu
                            120
                                                 125
Gln Leu His Leu Asp Pro Val Phe Trp Gly Tyr Pro Pro Gly Trp Trp
                        135
                                             140
Asp Lys Ala Pro Leu Ile Asn Ala Arg Val Glu Thr Ala Ala Thr Ser
                    150
                                        155
Arg Met Phe Lys Pro Leu
<210> 6121
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 6121
Gln His Gly Arg Ala Ile Cys Phe Ala Asp Gly Trp Phe Glu Trp Lys
                                    10
Arg Glu Glu Gly Lys Lys Gln Pro Tyr Phe Ile His Arg Ala Asp Gly
            20
                                25
Gln Pro Ile Phe Met Ala Ala Ile Gly Ser Thr Pro Phe Glu Arg Gly
                            40
                                                 45
Asp Glu Ala Glu Gly Phe Leu Ile Val Thr Ser Ala Ala Asp Lys Gly
                        55
                                            60
Leu Val Asp Ile His Asp Arg Arg Pro Leu Val Leu Ser Pro Glu Ala
                    70
                                        7.5
Ala Arg Glu Trp Met Arg Gln Glu Val Gly Gly Lys Glu Ala Glu Gln
               85
                                    90
Ile Ala Ala Asp Gly Val Ser Thr Arg Gln Gly Glu Val Gln Arg
<210> 6122
<211> 143
<212> PRT
<213> Enterobacter cloacae
<400> 6122
Asn Ser Ala Ser Gln Lys Glu Ile Ala Met Thr Leu Pro Ser Gly His
                                    10
Pro Lys Ser Arg Leu Ile Lys Lys Phe Met Ala Leu Gly Pro Tyr Ile
                                25
Arg Glu Glu Gln Cys Glu Glu Asn Arg Phe Phe Asp Cys Leu Ala
Val Cys Val Asn Val Lys Pro Ala Pro Glu Lys Arg Glu Phe Trp Gly
                        55
Trp Trp Met Glu Met Glu Ala Gln Glu Asn Arg Phe Thr Tyr Ser Tyr
                    70
```

```
Gln Phe Gly Leu Phe Asn Lys Asp Gly His Trp Gln Ala Thr Ser Ile
               85
                                    90
Lys Asp Gln Glu Val Ile Asp Arg Leu Glu His Thr Leu Lys Glu Phe
                               105
            100
                                                   110
His Gly Lys Ala Arg Asp Leu Leu Ala Thr Leu Asp Leu Lys Leu Glu
                           120
                                               125
Pro Ala Asp Asp Phe Ser Ser Glu Ala Val Lys Leu Arg Ala
                        135
<210> 6123
<211> 169
<212> PRT
```

<213> Enterobacter cloacae

<400> 6123 Leu Arg Pro Arg Pro Ala Ile Lys Ala Leu Glu Asn Ile Pro Trp Val

10 Asp His Thr Arg Val Gly Ala Phe Gly Phe Arg Phe Gly Ala Asn Val 25 Ala Val Arg Leu Ala Tyr Leu Glu Ser Ser Arg Leu Lys Ala Val Ala 45 40 35 Cys Leu Gly Pro Val Val His Ala Leu Leu Ser Asp Pro Ala Arg Gln 55 Gly Ser Val Pro Glu Met Tyr Leu Asp Val Leu Ala Ser Arg Leu Gly 75 Met His Asp Ala Ser Asp Glu Ala Leu Arg Ile Glu Leu Asn Arg Tyr 90 Ser Leu Lys Thr Gln Gly Leu Leu Gly Arg Arg Cys Pro Thr Pro Met 100 105

Met Ser Gly Phe Trp Lys Asn Asp Pro Phe Ser Pro Glu Glu Glu Ser 120 Arg Leu Ile Thr Ser Ser Ser Ser Gly Lys Leu Leu Glu Val Pro 135 140 Phe Ser Pro Val Tyr Gln Asn Phe Asp Lys Ala Leu Lys Glu Ile Thr 150 155

Arg Trp Ile Thr Gln Arg Leu Cys 165

<210> 6124 <211> 381 <212> PRT

<213> Enterobacter cloacae

<400> 6124

Leu Thr Ser Phe Ser Leu Ile Val Glu Arg Gln Arg Ile Met Ser Asp Ser Gln Thr Leu Val Val Lys Leu Gly Thr Ser Val Leu Thr Gly Gly 25 Ser Arg Arg Leu Asn Arg Ala His Ile Val Glu Leu Val Arg Gln Cys 40 Ala Gln Leu His Ala Ala Gly His Arg Ile Val Ile Val Thr Ser Gly 55 60 Ala Ile Ala Ala Gly Arg Glu His Leu Gly Tyr Pro Glu Leu Pro Ala 70 75 Thr Ile Ala Ser Lys Gln Leu Leu Ala Ala Val Gly Gln Ser Arg Leu 85 90 Ile Gln Leu Trp Glu Gln Leu Phe Ser Ile Tyr Gly Ile His Val Gly 105 Gln Met Leu Leu Thr Arg Ala Asp Met Glu Asp Arg Glu Arg Phe Leu 120 Asn Ala Arg Asp Thr Leu Arg Ala Leu Leu Asp Asn His Ile Val Pro

```
135
                                            140
Val Ile Asn Glu Asn Asp Ala Val Ala Thr Ala Glu Ile Lys Val Gly
                   150
                                        155
Asp Asn Asp Asn Leu Ser Ala Leu Ala Ala Ile Leu Ala Gly Ala Asp
                                    170
               165
Lys Leu Leu Leu Thr Asp Gln Gln Gly Leu Phe Thr Ala Asp Pro
           180
                                                    190
                               185
Arg Ser Asn Pro Gln Ala Glu Leu Ile Lys Asp Val His Gly Ile Asp
                           200
                                                205
Asp Ala Leu Arg Ala Ile Ala Gly Asp Ser Val Ser Gly Leu Gly Thr
                                            220
                       215
Gly Gly Met Gly Thr Lys Leu Gln Ala Ala Asp Val Ala Cys Arg Ala
                   230
                                        235
Gly Ile Asp Thr Ile Ile Ala Ala Gly Ser Arg Pro Gly Val Ile Gly
               245
                                    250
Asp Val Met Glu Gly Ile Ser Val Gly Thr Arg Phe His Ala Gln Ala
                                265
Ser Pro Leu Glu Asn Arg Lys Arg Trp Ile Phe Gly Ala Pro Pro Ala
                           280
Gly Glu Leu Thr Val Asp Glu Gly Ala Thr Ala Ala Ile Leu Glu Arg
                        295
Gly Ser Ser Leu Leu Pro Lys Gly Ile Lys Ser Val Thr Gly Asn Phe
                    310
                                        315
Ser Arg Gly Glu Val Ile Arg Ile Arg Asn Leu Gly Gly Arg Asp Ile
                325
                                    330
Ala His Gly Val Ser Arg Tyr Asn Ser Asp Ala Leu Arg Arg Ile Ala
                                345
Gly His His Ser Gln Gln Ile Asp Ala Ile Leu Gly Tyr Glu Tyr Gly
                            360
Pro Val Ala Val His Arg Asp Asp Met Ile Ile Arg
<210> 6125
<211> 360
<212> PRT
<213> Enterobacter cloacae
<400> 6125
Arg Val Phe Ile Lys Ser Gly Leu Lys Met Lys Lys Ser Thr Leu Ala
                                    10
Leu Val Val Met Gly Val Val Ala Ser Ala Ser Val Gln Ala Ala Glu
                                25
Val Tyr Asn Lys Asn Gly Asn Lys Leu Asp Val Tyr Gly Lys Val Lys
                            40
Ala Met His Tyr Ile Arg Asp Asp Asp Ala Lys Asp Gly Asp Gln Thr
Tyr Val Arg Phe Gly Phe Lys Gly Glu Thr Gln Ile Asn Asp Gln Leu
Thr Gly Tyr Gly Arg Trp Glu Ala Glu Phe Ala Gly Asn Lys Ala Glu
                85
                                    90
Ser Asp Ser Ser Gln Lys Thr Arg Leu Ala Phe Ala Gly Leu Lys Leu
            100
                                105
Lys Asp Phe Gly Ser Leu Asp Tyr Gly Arg Asn Leu Gly Ala Leu Tyr
```

115 120 125
Asp Val Ala Ala Tyr Thr Asp Met Phe Pro Glu Phe Gly Gly Asp Gly

Leu Ala Gln Thr Asp Asn Phe Met Thr Lys Arg Ala Ser Gly Leu Ala

Thr Tyr Arg Asn Thr Asp Phe Phe Gly Leu Val Asp Gly Leu Asn Met

Thr Leu Gln Tyr Gln Gly Lys Asn Glu Asn Arg Asp Val Lys Lys Gln

140

155

170

135

Glu Ser Lys

```
180
                                185
Asn Gly Asp Gly Phe Gly Thr Ser Leu Ser Tyr Asp Phe Gly Gly Ser
                                              205
                           200
Asp Phe Ser Val Ile Gly Ala Tyr Ala Ser Ser Asp Arg Thr Asn Glu
                       215
                                           220
Gln Asn Leu Gln Ala Arg Gly Glu Gly Lys Lys Ala Glu Gly Trp Ala
                   230
                                        235
Thr Gly Leu Lys Tyr Asp Ala Asn Asp Ile Tyr Leu Ala Thr Ile Tyr
               245
                                    250
Ser Glu Thr Arg Asn Met Ala Pro Ile Ser Gly Gly Phe Ala Asn Lys
                                265
Ala Gln Asn Phe Glu Val Val Ala Gln Tyr Gln Phe Asp Phe Gly Leu
                            280
Arg Pro Ser Leu Gly Tyr Val Gln Ser Lys Gly Lys Asp Ile Glu Gly
                        295
Ile Gly Asp Glu Asp Ile Val Lys Tyr Ile Asp Val Gly Ala Thr Tyr
                    310
                                        315
Tyr Phe Asn Lys Asn Met Ser Ala Phe Val Asp Tyr Lys Ile Asn Gln
                325
                                    330
Ile Asp Asp Asp Asn Lys Leu Gly Val Ser Ser Asp Asp Ile Val Ala
                                345
            340
Leu Gly Met Thr Tyr Gln Phe
        355
                            360
<210> 6126
<211> 244
<212> PRT
<213> Enterobacter cloacae
<400> 6126
Arg Lys Gly Tyr Pro Phe His Lys Glu Ser Ile Val Lys Lys Ala Leu
                                    10
Leu Ser Ala Leu Ala Val Thr Ser Leu Phe Ala Leu Phe Gly Cys Asn
            20
                                25
                                                    30
Asn Arg Ser Glu Thr Gln Val Leu Gln Pro Thr Gln Asn Glu Glu Leu
        35
                            40
Lys Pro Met Gln Gln Ser Trp Arg Gly Val Leu Pro Cys Ala Asp Cys
                        55
Glu Gly Ile Glu Thr Ser Leu Phe Leu Gln Lys Asp Gly Thr Trp Val
                    70
                                        75
Met Asn Gln Arg Tyr Gln Gly Ala Lys Glu Pro Ser Ser Phe Ala Ser
                85
                                    90
Tyr Gly Thr Trp Ala Arg Thr Ala Glu Lys Leu Val Leu Thr Asp Thr
                                105
Thr Gly Asp Lys Thr Phe Phe Arg Ala Lys Gly Glu Gly Met Glu Met
                            120
Leu Asp Arg Glu Gly Asn Pro Ile Glu Ser Gln Phe Asn Tyr Thr Leu
                        135
                                            140
Ala Pro Val Lys Ala Thr Leu Pro Ala Thr Pro Met Ala Met Arg Gly
                    150
                                        155
Met Tyr Phe Tyr Met Ala Asp Ala Ile Phe Thr Asp Cys Ala Thr
                165
                                    170
Gly Lys Lys Val Ser Val Ala Asn Asn Ala Gln Leu Glu Arg Asp Tyr
            180
                               185
                                                    190
Ala Val Ala Arg Gly Asn Asp Ser Lys Pro Val Leu Leu Thr Val Glu
                            200
                                                205
Gly His Phe Thr Leu Glu Pro Asn Pro Asp Ser Gly Glu Leu Val Lys
                       215
                                           220
Thr Leu Val Ala Asp Lys Asp Ala Lys Phe Ala Ala Gly Lys Asp Cys
                  230
                                        235
```

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<210> 6127
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 6127
Ser Gly Asn Ser Ser His Gly Leu Ala Ala Arg Ile Met Ile Val Leu
Ser Arg Asn Val Ser Ile Pro Asp Asn Glu Leu Glu Ile Thr Ala Ile
                                 25
Arg Ala Gln Gly Ala Gly Gln His Val Asn Lys Ala Ser Thr Ala
                             40
Ile His Leu Arg Phe Asp Ile Arg Ala Ser Ser Leu Pro Glu Tyr Tyr
                         55
Lys Glu Ser Leu Leu Ala Ala Ser His His Leu Ile Thr Ser Glu Gly
                     70
                                         7.5
Val Ile Val Ile Lys Ala Gln Glu Tyr Arg Ser Gln Glu Leu Asn Arg
                 8.5
                                     90
·Glu Ala Ala Thr Ala Arg Leu Val Ala Val Ile Lys Glu Leu Thr Ala
             100
                                 105
Val Gln Lys Ser Arg Arg Ala Thr Arg Pro Thr Arg Ala Ser Lys Glu
        115
                             120
Arg Arg Leu Ser Ser Lys Ala Gln Lys Ser Thr Val Lys Ser Leu Arg
                         135
Gly Lys Val Arg His Pro
145
<210> 6128
<211> 188
<212> PRT
<213> Enterobacter cloacae
<400> 6128
Phe Glu Arg Ser Ser Leu Met Ala Leu Lys Ala Thr Ile Tyr Lys Ala
                                     10
Val Val Asn Val Ala Asp Leu Asp Arg Asn Gln Phe Leu Asp Ala Ser
Leu Thr Leu Ala Arg His Pro Ser Glu Thr Gln Glu Arg Met Met Leu
Arg Leu Leu Ala Trp Ile Lys Tyr Ala Asp Glu Arg Leu Gln Phe Thr
Arg Gly Leu Ser Ala Glu Asp Glu Pro Glu Ala Trp Leu Arg Asn Asp
                                         75
His Leu Gly Ile Asp Leu Trp Ile Glu Leu Gly Leu Pro Asp Glu Arg
                85
Arg Ile Lys Lys Ala Cys Thr Gln Ser Ala Glu Val Ala Leu Phe Ala
            100
                                 105
Tyr Asn Gln Arg Ala Ala Asp Ile Trp Trp Gln Gln Asn Lys Asn Lys
                            120
                                                 125
Cys Ala Gln Phe Lys Asn Leu Thr Val Trp Tyr Leu Asp Asp Glu Gln
                        135
                                             140
Leu Ala Gln Leu Ser Ala Phe Ala Ser Arg Thr Met Ala Leu Gln Ala
                    150
                                        155
Thr Ile Gln Asp Gly Ala Ile Trp Leu Ser Asp Ser Gln Asn Asn Leu
                                    170
Glu Ile His Leu Thr Ala Trp Gln Pro Ala Ser
```

```
<211> 61
<212> PRT
<213> Enterobacter cloacae
<400> 6129
Arg Pro Thr Asn Gln Asp Ser Pro Pro Asn Ile Pro Thr Ala Arg Lys
                                    10
Arg Met Gln Ile Asn Ala Ser Lys Met Lys Ala Asn Ala Val Leu Leu
His Thr Cys Glu Val Thr Ser Gly Thr Pro Gly Cys Tyr Arg Gln Ala
                            40
Val Cys Ile Gly Ser Ala Leu Asn Ile Thr Ala Lys
<210> 6130
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6130
Ala Leu Ser Ala Pro Leu Ile Lys Lys Ser Ser Pro Cys Arg Val Ser
                                    10
Arg Val Trp Ser Phe Thr Ala Ala Ala Ser Phe Ile Leu Ser Arg Arg
            20
                                25
Ile Thr Arg Pro Met Gln Cys Ala Gly Leu Arg Arg Ser Ala Ile Tyr
                            40
Gly Trp Ser Leu Cys Phe Thr Arg Pro Trp Lys Ala Ala Gly Val Pro
                        55
Leu Cys Val Leu Leu Val Trp Ala Glu Met Pro Glu Trp Gly Ser Leu
                   70
                                        75
Pro Pro Ala Gln Pro Phe Val Pro Thr Pro Ser Glu Cys Arg Trp Ser
                                    90
Ser
<210> 6131
<211> 595
<212> PRT
<213> Enterobacter cloacae
<400> 6131
Thr Thr Phe Phe Val Ser Gly Trp Cys Phe Ser Leu Phe Gln Ser Ser
                                    10
Lys Trp Asn Arg Asn Asn Met Arg Thr Ser Gln Tyr Leu Leu Ser Thr
Leu Lys Glu Thr Pro Ala Asp Ala Glu Val Ile Ser His Gln Leu Met
Leu Arg Ala Gly Met Ile Arg Lys Leu Ala Ser Gly Leu Tyr Thr Trp
Leu Pro Thr Gly Val Arg Val Leu Lys Lys Val Glu'Asn Ile Val Arg
                                        75
Glu Glu Met Asn Asn Ala Gly Ala Ile Glu Val Leu Met Pro Val Val
                                    90
Gln Pro Ser Glu Leu Trp Gln Glu Ser Gly Arg Trp Glu Gln Tyr Gly
            100
                                105
Pro Glu Leu Leu Arg Ile Ala Asp Arg Gly Asp Arg Pro Phe Val Leu
                            120
                                                 125
Gly Pro Thr His Glu Glu Val Ile Thr Asp Leu Ile Arg Asn Glu Leu
                        135
                                            140
Ser Ser Tyr Lys Gln Leu Pro Leu Asn Phe Phe Gln Ile Gln Thr Lys
```

```
Phe Arg Asp Glu Val Arg Pro Arg Phe Gly Val Met Arg Ser Arg Glu
                165
                                    170
Phe Leu Met Lys Asp Ala Tyr Ser Phe His Thr Ser Gln Glu Ser Leu
                                185
            180
Gln Glu Thr Tyr Asp Lys Met Tyr Ala Ala Tyr Ser Lys Ile Phe Ser
                            200
Arg Met Gly Leu Asp Phe Arg Ala Val Gln Ala Asp Thr Gly Ser Ile
                        215
                                            220
Gly Gly Ser Ala Ser His Glu Phe Gln Val Leu Ala Gln Ser Gly Glu
                    230
                                        235
Asp Asp Val Ile Phe Ser Asp Ser Ser Asp Tyr Ala Ala Asn Ile Glu
                245
                                    250
Phe Ala Glu Ala Leu Ala Pro Lys Glu Pro Arg Gly Ala Ala Thr Gln
                                265
Glu Met Thr Leu Val Asp Thr Pro Asn Ala Lys Thr Ile Ala Glu Leu
                            280
Val Glu Gln Phe Thr Leu Pro Ile Glu Lys Thr Val Lys Thr Leu Leu
                        295
                                            300
Val Lys Ser Ala Glu Gly Ser Ala Tyr Pro Leu Val Ala Leu Leu Val
                    310
                                        315
Arg Gly Asp His Glu Leu Asn Glu Val Lys Ala Glu Lys Leu Pro Gln
                                    330
                325
Val Ala Ser Pro Leu Thr Phe Ala Thr Glu Ala Glu Ile Arg Ala Val
            340
                                345
                                                     350
Val Asn Ala Gly Pro Gly Ser Leu Gly Pro Val Asn Met Pro Val Pro
                            360
                                                 365
Val Val Ile Asp Arg Thr Val Ala Ala Met Ser Asp Phe Ala Ala Gly
                        375
                                            380
Ala Asn Ile Asp Gly Lys His Tyr Phe Gly Ile Asn Trp Asp Arg Asp
                                         395
                    390
Val Ala Thr Pro Glu Val Ala Asp Ile Arg Asn Val Val Ala Gly Asp
                405
                                  410
Pro Ser Pro Asp Gly Lys Gly Thr Leu Met Ile Lys Arg Gly Ile Glu
            420
                                425
                                                     430
Val Gly His Ile Phe Gln Leu Gly Asp Lys Tyr Ser Arg Ala Met Asn
                            440
                                                 445
        435
Ala Ala Val Gln Gly Glu Asp Gly Arg Asn Gln Val Leu Thr Met Gly
                        455
                                            460
Cys Tyr Gly Ile Gly Val Thr Arg Val Val Ala Ala Ala Ile Glu Gln
                    470
                                         475
Asn Tyr Asp Glu Arg Gly Ile Val Trp Pro Asp Asn Ile Ala Pro Phe
                485
                                    490
Gln Val Ala Ile Leu Pro Met Asn Met His Lys Ser Tyr Arg Val Gln
                                505
Glu Leu Ala Glu Lys Leu Tyr Ala Glu Leu Ser Ala Lys Gly Ile Asp
                            520
Val Leu Met Asp Asp Arg Lys Glu Arg Pro Gly Val Met Phe Ala Asp
                        535
Met Glu Leu Ile Gly Ile Pro His Thr Ile Val Ile Gly Asp Arg Asn
                    550
                                        555
Leu Asp Ser Asp Glu Ile Glu Tyr Lys Tyr Arg Arg Asn Gly Glu Lys
                565
                                    570
Gln Met Ile Lys Thr Gly Asp Ile Leu Asp Tyr Leu Val Lys Ala Ile
            580
                                585
Lys Gly
        595
```

<sup>&</sup>lt;210> 6132

<sup>&</sup>lt;211> 75

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6132
Val Ser Thr Leu Ala Gly Gly Asp Val Asn Asn Tyr Cys Glu Leu Ile
                                    10
Arg Arg Arg Tyr Ala Glu Ile Ala Ser Gly Asp Leu Gly Tyr Ile Pro
            20
                                25
Asp Ala Leu Gly Cys Val Leu Asn Val Leu Asn Glu Val Ala Ser Asp
                            40
Glu Ser Leu Ser Glu Ser Val Ser Gly Thr Ala Gly Phe Gln His Ala
                        55
Ala Pro Asp His Thr Val Leu Ser Pro Gly Gly
<210> 6133
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 6133
His Tyr Gly Glu Met Ser Ser Phe Gln Phe Glu His Ile Gly Val Ile
                                     10
Arg Ser Pro Tyr Lys Glu Lys Phe Ala Val Pro Arg Gln Pro Gly Leu
            20
                                25
Val Ile His Gly Gly Glu Leu His Leu Val Ala Pro Tyr Asn Gln
                            4 N
Ala Asp Ala Val Arg Gly Leu Glu Ala Phe Ser His Leu Trp Val Val
                        55
Phe Val Phe His Gln Thr Met Glu Gly Gly Trp Arg Pro Thr Val Arg
Pro Pro Arg Leu Gly Gly Asn Ala Arg Met Gly Val Phe Ala Thr Arg
                85
                                     90
Ser Thr Phe Arg Pro Asn Pro Ile Gly Met Ser Leu Val Glu Leu Lys
            100
                                105
                                                     110
Gly Ile Arg Cys Gln Arg Asp Gln Val Ile Leu Glu Leu Gly Ser Leu
        115
                            120
Asp Leu Val Asp Gly Thr Pro Val Ile Asp Ile Lys Pro Tyr Leu Pro
                        135
                                             140
Phe Ala Glu Ala Leu Pro Asp Ala Arg Ala Ser Tyr Ala Gln Asp Ala
                    150
                                         155
Pro Gln Ala Asp Met Pro Val His Phe Thr Ser Glu Ile Thr Thr Gln
                                     170
Ile Ser Glu Leu Glu Lys Arg Tyr Pro Arg Leu Arg Asp Phe Ile Val
                                185
Glu Val Leu Ala Gln Asp Pro Arg Pro Ala Tyr Arg Lys Glu Glu Glu
                            200
Ala Gly Lys Thr Tyr Ala Val Trp Leu Leu Asp Phe Asn Val Arg Trp
                        215
                                             220
Arg Val Thr Ala Ala Gly Phe Glu Val Phe Ala Leu Glu Pro Arg
                    230
                                         235
                                                             240
<210> 6134
<211> 147
<212> PRT
<213> Enterobacter cloacae
<400> 6134
Glu Arg Asn Trp Gly Met Lys Ser Lys Ile Arg Tyr Val Leu Ser Gly
Phe Val Val Leu Cys Ala Phe Ala Gly Val Tyr Lys Ile Leu Asn Asn
Val Pro Val Lys Pro Asp Leu Leu Asp Phe Thr Gly Asn Thr Phe Lys
```

40 Lys Thr Ser Leu Phe Leu Pro Cys Asp Lys Ser Ser Pro Ser Leu Asn 55 60 Ile Lys Ile Ala Asp Asn Glu Lys Ile Val Ile Asn Gly Ile Ala Ser 70 75 Lys Val Thr Phe Val Glu Lys Ala Asp Pro Val Lys Ser Pro Gly Phe 85 90 Cys Asp Asp Leu Asp Leu Asn Asn Ser Arg Leu Val His Thr Ala Ser 105 Tyr Ser Leu Val Ile Ser Glu Thr Lys Thr Gly Phe Thr Leu Ser Asn 120 Phe Lys His Leu Ala Asp Asp Glu Ser Leu Gly Gly Met Trp Phe Tyr 135 Gln Lys 145 <210> 6135 <211> 1226 <212> PRT <213> Enterobacter cloacae <400> 6135 Phe Cys Ser Glu Lys Gln Val Phe Val Met Arg Lys Ser Gly Leu Gly Leu Ala Leu Leu Phe Ser Leu Ile Ala Pro Ile Lys Ala Val Tyr Ala 20 25 Glu Ala Ile Met Ile Ser Gly Lys Leu Gln Ala Asp Leu Pro Ala Val 40 Ser Phe Asp Pro Gly Pro Gly Asp Phe Val Ala Tyr Val Asn Ser Asn 55 Thr Ile Thr Ala Ser Gly Ala Gly Thr Ala Cys Asn Val Thr Val Asp 70 Asp Arg Ala Thr Ser Ser Val Asp Asn Leu Val Cys Phe Phe Glu Trp 85 90 Leu Pro Asn Thr Leu Gly Leu Thr Ser Asn Gly Phe Ile Leu Ser Gly 105 100 Val Pro Tyr Thr Thr Gly Asp Leu Lys Leu Pro Tyr Lys Ile Ser Tyr 115 120 Phe Ser Gly Ser Glu Arg Lys Lys Val Glu Ile Val Lys Gly Glu Tyr 135 Ser Ile Lys Ser Val Ala Pro Val Lys Pro Thr Ile Thr Gly Leu Lys 150 155 Ser Ser Leu Asn Gly Leu Val Tyr Asp Gly Phe Ser Phe Lys Ser Tyr 170 Leu Lys Asp Glu Ala Ile Lys Asp Ile Ala Val Ser Val Glu Pro Arg 185 Asn Tyr Ile Gln Tyr Ile Ser Ile Gly Ser Gly Ser Ala Cys Glu Val 200 Pro Ile Gly Gly Thr Ser Cys Thr Ile Glu Val Gly Ser Ile Lys Ala 215 220 Ser Asp Thr Asp Glu Leu Leu Gly Ser Arg Asp Ile Thr Ile Thr Ala 230 235 Asn Ser Lys Asn Asn Tyr Phe Ala Pro Pro Glu Ser Lys Lys Leu Val 245 250 Val Asn Trp Asp Tyr Arg Pro Pro Val Val Asp His Thr Leu Trp Asn 260 265 Phe Thr Asp Glu Ala Lys Thr Ile Lys Val Gly Gln Asp Ile Tyr 280 285 Thr Gly Ala Lys Thr Val Ala Val Ala Val Lys Val Pro Gln Glu 295 300 Thr Glu Gly Glu Trp Trp Leu Pro Thr Ala Met Ser Leu Thr Met Thr

305					310					315					320
Pro	Asp	Gly	Val	Phe 325	Lys	Pro	Thr	Thr	Lys 330	Val	Thr	Leu	Asp	Asp 335	Gly
Thr	Glu	Ile	Asp 340	Phe	Lys	Gln	Ser	Trp 345	Ala	Thr	Pro	Leu	Arg 350	Arg	Thr
Leu	Gln	Pro 355	Val	Ser	Gly	Pro	Gln 360	Lys	Val	Gly	Asp	Glu 365	Tyr	Leu	Tyr
Ile	Phe 370	Asp	Leu	Thr	Asp	Leu 375	Ile	Asn	Gly	Ser	Tyr 380	Ala	Ala	Thr	Phe
Thr 385	Val	Glu	Asn	Thr	Ser 390	Lys	Asn	Ser	Ser	Thr 395	Tyr	Thr	Glu	Pro	Glu 400
Ser	Lys	Leu	Met	Leu 405	Ser	Asp	Asn	Pro	Thr 410	Leu	Met	Val	Leu	Lys 415	Asp
Gly	Gln	Val	Leu 420	Thr	Lys	Arg	Ala	Pro 425	Val	Tyr	Phe	Leu	Asn 430	Glu	Ile
Ile	Val	Ala 435	Ala	Phe	Gln	Gly	Gln 440	Ala	Gly	Val	Ala	Asp 445	Ile	Lys	Ser
Val	Thr 450	Ile	Asp	Asn	Lys	Val 455	Val	Ser	Leu	Thr	Pro 460	Thr	Asn	Tyr	Lys
465					Pro 470					475					480
				485	Val				490					495	
			500		Thr			505					510		
		515			Thr		520					525			
	530				Ala	535			•	,	540				
545					Tyr 550					555					560
				565	Gln				570					575	
			580		Thr			585					590		
_		595			Asp		600					605	_	_	_
	610				Ala	615		_	_		620				
625	_				Ile 630		_	_	_	635	_				640
				645	Ala				650					655	
_			660	_	Val`			665	_				670		
		675			Ala		680				_	685	_		
	690	_			Thr	695			_		700				
705		_			Asn 710					715			_		720
_				725	Thr				730			_		735	
_			740	_	Ala			745		_	_	_	750		
		755			Pro		760					765			
	770				Ala	775	_				780	_			
785	Thr	тте	Tyr	ser	Gln 790	ьys	ser	val	Tyr	795	гуѕ	ASP	rro	GIU	800

Gly Arg Tyr Lys Thr Thr Tyr Glu Arg Thr Ala Leu Thr Glu Ala Leu 805 810 Pro Val Asn Asp Ala Gly Ile Val Glu Thr Lys Ile Lys Ile Glu Asn 825 Met Asp Leu Gly Asn Met Arg Leu Val Gly Val Ala Lys Val Arg Ser 840 Pro Phe Ser Asp Phe Glu Met Lys Arg Glu Thr Ser Ala Val Gly Ile 855 Arg Ile Tyr Lys Gly Glu Glu Leu Glu Gly Asn Leu Ser Lys Ser Leu 870 875 Ile Ile Gly Arg Ile Pro Leu Ser Thr Leu Val Ser Phe Lys Ser Ala 885 890 Ser Thr Ala Asn Ser Asp Ala Leu Ala Pro Thr Glu Trp Gln Gln Ser 900 905 910 Ser Asp Asn Gly Gln Thr Trp Thr Met Leu Ser Asp Met Thr Gly Lys 915 920 Arg Ser Val Ser Ile Lys Lys Thr Glu Val Gly Lys Trp Leu Tyr Arg 935 940 Ala Lys Met Thr Asn Lys Phe Thr Ser Lys Ile Ser Tyr Thr Asp Ala 950 955 Leu Thr Val Val Thr Tyr Lys Gln Pro Lys Leu Ser Ile Asp Val Thr 965 970 Asp Ile Leu Gln Gly Ser Asp Ile Pro Val Thr Leu Leu Asp Asn Asp 985 Glu Pro Ile Pro Ala Gly Thr Ala Glu Val Leu Trp Ser Glu Asp Lys 1000 1005 Val Asn Trp Val Gln Gly Asp Thr Thr Tyr Thr Val Ala Ser Ala Asp 1015 1020 Thr Leu Pro Ser Thr Ile Tyr Ala Arg Met Arg Tyr Leu Asp Ser Asp 1030 1035 Glu Leu Ala Glu Glu Ser Ser Trp Lys Glu Thr Ser Ala Arg Leu Ala 1045 1050 Ala Ala Lys Pro Lys Arg Leu Ser Val Ser Val Thr Gly Val Ser Lys 1060 1065 Val Glu Val Gly Gln Lys Val Thr Leu Glu Gly Lys Phe Thr Asn Pro 1080 1075 1085 Asn Ser Lys Tyr Gln Asn Gly Asn Asn Val Val Glu Glu Trp Lys Thr 1095 1100 Pro Asp Gly Gln Thr Phe Lys Gly Ser Ser Leu Ser Val Thr Leu Thr 1110 1115 Glu Gln Met Leu Asp Lys Gln Gly Tyr Ala Ala Phe Glu Tyr Ser Ala 1125 1130 Trp Leu Ala Asp Asn Lys Glu Asn Thr Val Ser Thr Arg Arg Val Ser 1145 1150 1140 Val Lys Ser Trp Val Tyr Lys Phe Pro Glu Met Lys Ile Ser Ser Lys 1160 1165 Leu Lys Tyr Asp Met Ala Pro Thr Thr Leu Arg Val Ala Leu Ser Gly 1175 1180 Ile Lys Asp Gly Asp Tyr Pro Gly Val Thr Tyr Ser Arg Glu Trp Ile 1190 1195 Tyr Asp Lys Glu Asn Leu Val Ile Thr Thr Asp Val Phe Thr Thr Glu 1205 1210 Leu Ala Gly Pro Ala Pro Lys Gly Met Gly 1220

<210> 6136

<211> 160

<212> PRT

<213> Enterobacter cloacae

```
Leu Ile Ile Ile Lys Ala Asp Arg Met Leu Ser Arg Asn Ser Leu
                                    10
Ile His Gly Leu Arg Arg Asp Gln Leu Ile Gly Val Leu Thr Ile Ser
                                25
Glu Phe Pro Val Val Met Val Glu Ser His Phe Ile Gln Ser Glu Val
                            40
Met Gly Ile Lys Pro Val Ile Phe Asn Ile Asp Glu Leu Leu Val Ser
                        55
Ile Ser Pro Ile Ser Ser Leu Lys Phe Asp Trp Glu Trp Ala Pro Val
                    70
                                        75
Asp Thr Ile Leu Ile Glu Val Ile Ile Pro Pro Val Glu Ser Asp Leu
                85
                                    90
Val Ser Ala Glu Asn Asp Phe Leu Arg Asp Ser Gly Ile Gly His Ile
            100
                                105
Gln Cys Glu Pro Gly Gly Ala Ser Ile Arg Arg Thr Val Thr Phe Val
                            120
Gly Gly Ile Thr Ala Asp Asn Leu Leu Tyr Gln Leu Arg Leu Met Cys
                       135
                                            140
Val Ser Ala Leu Lys Leu Leu Gly Glu Glu Leu Gly Asp Glu Val
<210> 6137
<211> 199
<212> PRT
<213> Enterobacter cloacae
<400> 6137
Ile Ile Arg Arg Tyr Val Val Leu Ser Lys Val Thr Phe Tyr Met Ala
                                    10
Thr Ser Asp Phe Ala Leu Lys Asn His Asn Val Lys Ala Phe Gly Gln
                                25
Asp Ala Ala Leu Val Ile Glu Met Asn Asn Glu Asp Val Ser Ser Ser
                            40
Lys Pro Ser Pro Phe Ser Asn Glu Ile Asp Asn Tyr Tyr Leu Thr Leu
                        55
His Val Ala Pro Arg Asn Ala Lys Lys Asp Tyr Asp Trp Gly Ser Asn
                                        75
Arg Ser Val Leu Lys Leu Ser Thr Asn Glu Val Met Gln Met Ala
                                    90
                8.5
Ser Val Phe Leu Arg Ile Met His Thr Leu Lys Ile Asp Lys Arg Lys
                                105
                                                    110
Thr Ser His His Gly His Val Val Tyr Lys Asn Ile Ser Val Thr Pro
                            120
Asn Glu Arg Gly Gly Leu Leu Ser Ala Gly Ile Val Pro Val Asp
                        135
                                            140
Lys Asp Gly Leu Lys Pro Phe Met His Met Val Pro Val Ser Gln Met
                    150
                                        155
Asp Cys Val Lys Ile Gly Leu Tyr Ile Leu Gly Tyr Leu Ala Gln Lys
                                    170
Thr Pro Trp Val Ser Ser Glu Ser Ile Ile Thr Ala Leu Arg Leu Ser
                                185
Glu Ala Lys Asn Ser Lys
        195
<210> 6138
<211> 173
<212> PRT
<213> Enterobacter cloacae
<400> 6138
```

Gln Phe Lys Leu Leu Asn Pro Leu Lys Gly Val Phe Met Ala Ile Pro

```
2403
                                    10
Ala Tyr Leu Trp Leu Lys Asp Asp Gly Gly Ala Asp Ile Lys Gly Ala
                                25
Val Asp Val Gln Asp Arg Glu Gly Ser Ile Glu Val Leu Gly Phe Gly
                            40
                                                45
His Gly Leu His Leu Pro Thr Asp Asn Met Thr Gly Lys Ile Thr Gly
                        55
Thr Arg Val His Ser Ala Leu Val Phe Glu Lys Glu Phe Asp Ser Ser
                    70
                                        75
Ser Pro Tyr Leu Tyr Lys Ala Val Ala Lys Gly Gln Thr Leu Lys Ser
                85
                                    90
Ala Glu Phe Lys Trp Tyr Lys Ile Asn Asp Ala Gly Gln Glu Ala Glu
            100
                                105
Tyr Phe Asn Met Lys Leu Glu Asn Val Lys Val Val Ser Ile Cys Pro
                            120
Met Met His Asp Val Lys Asn Pro Ala Thr Glu Lys His Asn His Leu
                        135
                                            140
Glu Ser Val Ala Leu Arg Tyr Glu Lys Ile Thr Trp Lys His Cys Asp
                    150
                                        155
Gly Asn Ile Ile Phe Ser Asp Glu Trp Lys Asp Arg
                165
<210> 6139
<211> 428
<212> PRT
<213> Enterobacter cloacae
<400> 6139
Ile Cys Glu Leu Asn Met Phe Ala Leu Cys Asp Val Asn Ser Phe Tyr
                                    10
Ala Ser Cys Glu Thr Val Phe Arg Pro Asp Leu Arg Gly Arg Pro Val
            20
Val Val Leu Ser Asn Asn Asp Gly Cys Val Ile Ala Arg Ser Ala Glu
                            40
Ala Lys Ala Ala Gly Ile Thr Met Gly Glu Pro Phe Phe Lys Gln Lys
Glu Leu Phe Arg Arg Ala Gly Val Val Cys Phe Ser Ser Asn Tyr Glu
                    70
                                        75
Leu Tyr Ala Asp Met Ser Asn Arg Val Met Thr Thr Leu Glu Glu Met
                                    90
Ser Pro Arg Val Glu Ile Tyr Ser Ile Asp Glu Ala Phe Cys Asp Leu
                                105
Thr Gly Val Arg Asn Cys Arg Asp Leu Thr Glu Phe Gly Lys Glu Ile
                            120
Arg Ala Thr Val Leu Lys Arg Thr His Leu Thr Val Gly Val Gly Ile
                        135
                                            140
Ala Gln Thr Lys Thr Leu Ala Lys Leu Ala Asn His Ala Ala Lys Lys
                    150
                                        155
Trp Gln Arg Gln Thr Gly Gly Val Val Asp Leu Ser Asn Ile Asp Arg
                                    170
                165
```

Gln Arg Arg Leu Leu Ala Leu Val Pro Val Glu Asp Val Trp Gly Val 185

Gly Arg Arg Ile Ser Lys Lys Leu Asn Ala Met Gly Ile Lys Thr Ala

Leu Asp Leu Ser Glu Gln Ser Thr Trp Ile Ile Arg Lys His Phe Asn

Val Val Leu Glu Arg Thr Val Arg Glu Leu Arg Gly Glu Pro Cys Leu

Glu Leu Glu Glu Phe Ala Pro Ala Lys Gln Glu Ile Val Cys Ser Arg

Ser Phe Gly Glu Arg Val Thr Glu Tyr Glu Gln Met Arg Gln Ala Ile

200

215

230

245

180

195

190

205

220

235

2404

```
260
                               265
Cys Ser Tyr Ala Ala Arg Gly Ala Glu Lys Leu Arg Gly Glu His Gln
                            280
                                               285
Tyr Cys Arg Phe Ile Ser Ala Phe Val Lys Thr Ser Pro Phe Ala Leu
                       295
                                            300
Asn Glu Val Tyr Tyr Gly Asn Ser Ala Ser Met Lys Leu Leu Thr Pro
                    310
                                        315
Thr Gln Asp Ser Arg Asp Ile Ile Asn Ala Ala Val Lys Cys Leu Asp
                325
                                    330
Lys Ile Trp Lys Asp Gly His Arg Tyr Gln Lys Ala Gly Ile Met Leu
                                345
Gly Asp Phe Phe Ser Gln Gly Val Ala Gln Leu Asn Leu Phe Asp Glu
                            360
Asn Ala Pro Arg Ala Gly Ser Glu Arg Leu Met Glu Val Leu Asp His
                        375
                                            380
Leu Asn Ala Lys Asp Gly Lys Gly Thr Leu Tyr Phe Ala Gly Gln Gly
                    390
                                        395
Val Gln Gln Trp Gln Met Lys Arg Glu Met Leu Ser Pro Arg Tyr
                405
                                    410
Thr Thr Arg Ile Ser Asp Ile Leu Lys Val Arg
            420
<210> 6140
<211> 158
<212> PRT
<213> Enterobacter cloacae
<400> 6140
Ser Leu Ser Gln Leu Lys Leu Leu Tyr Ile Lys Thr Val Phe Glu Val
                                    10
Cys Asn Met Glu Phe Ile Arg Pro Ala Glu Leu Arg Glu Ile Ile Ala
            20
                                25
Leu Pro Leu Phe Ser Asp Leu Val Gln Cys Gly Phe Pro Ser Pro Ala
                            40
Ala Asp Tyr Val Glu Glu Arg Ile Asp Leu Asn Glu Leu Leu Val Ala
                        55
His Pro Ser Ser Thr Tyr Phe Val Lys Ala Ala Gly Asp Ser Met Ile
                    70
Glu Ala Gly Ile Ser Asp Gly Asp Leu Leu Val Val Asp Ser Ser Arg
                85
                                    90
Thr Ala Glu His Gly Asp Ile Val Ile Ala Ala Val Glu Gly Glu Phe
                                105
Thr Val Lys Arg Leu Gln Leu Arg Pro Lys Val Gln Leu Asn Pro Met
                            120
Asn Ser Ala Tyr Ser Pro Ile Val Val Gly Ser Glu Asp Thr Leu Asp
                        135
Val Phe Gly Val Val Thr Phe Ile Val Lys Ser Ala Ser
                    150
<210> 6141
<211> 316
<212> PRT
<213> Enterobacter cloacae
<400> 6141
Arg Lys Glu Phe Cys Met Asn Val Lys Pro Ser Leu Asp Glu Leu Phe
                                    10
Glu Arg Arg Ile Asn Phe Pro Asp Phe Glu Pro Gln Glu Arg Leu Ala
                                25
```

Arg Leu Val Gly Leu Asp Glu His Lys Asp Arg Leu Ser Lys Ile Leu 35 40 45

```
Gly Leu Leu Val Asn Pro Tyr Gly Ile Gln Glu Trp Ala Lys Lys Tyr
His Pro Asp Ala Arg Ala Ala Val Asp Thr Val Leu Arg Arg Pro Pro
                                        75
Leu Val Val Leu Ala Gly Asp Val Gly Ser Gly Lys Thr Glu Leu Ala
                85
Glu Thr Ile Gly Asp Ala Val Ala Arg Gln Glu Asp Ile Asp Ile Thr
                                105
            100
                                                     110
Leu Tyr Pro Leu Ser Leu Ala Thr Arg Gly Gln Gly Arg Val Gly Glu
                            120
        115
Met Thr Gln Leu Val Ser Ala Ala Phe Asp Tyr Thr Ile Glu Ala Ala
                        135
                                            140
Asp Lys Leu Lys Asn Thr Asn Gly Lys Ala Arg Gly Ala Val Leu Leu
                    150
                                        155
Leu Ile Asp Glu Ala Asp Ala Leu Ala Gln Ser Arg Glu Asn Ala Gln
                165
                                    170
Met His His Glu Asp Arg Ala Gly Val Asn Ala Phe Ile Arg Gly Ile
                                185
Asp Arg Ile Ala Asn Gln Lys Leu Pro Ala Ala Val Leu Met Cys Thr
                            200
Asn Arg Leu Lys Ala Leu Asp Pro Ala Val Gln Arg Arg Ala Ala Glu
                        215
Val Leu Thr Phe Ser Arg Pro Asn Asp Glu Gln Arg His Tyr Leu Leu
                    230
                                        235
His Ser Lys Leu Thr Gly Leu Gly Leu Asn Ser Thr Ala Ile Glu Glu
                245
                                    250
Leu Val Arg Leu Thr Gly Pro Arg Asp Thr Asn Ser Pro Gly Phe Thr
            260
                                265
Phe Ser Asp Ile Thr Gln Arg Leu Ile Pro Ser Ile Ile Leu Thr Ala
                            280
Tyr Pro Tyr Ser Ala Val Ser Val His Ser Ala Leu Gln Val Val Asn
                        295
Lys Met Thr Pro Thr Pro Ala Phe Ile Asp Arg
                    310
<210> 6142
<211> 174
<212> PRT
```

<213> Enterobacter cloacae

<400> 6142

Asn Ser Asn Leu Leu Asn Asn Arg Thr Ile Cys Pro Gln Val Arg Met 10 His Met Ser Gly Phe Gln Glu Trp Leu Leu Ser Lys Ala Thr Gly Asn 25 Tyr Phe Leu Tyr Ile Lys Arg Leu Ser Ala Asn Asp Thr Gly Ala Thr 40 Gly Gly His Gln Val Gly Leu Tyr Ile Pro Ser Gly Ile Val Ala Glu 55 60 Leu Phe Pro Ser Ile Asp Asn Thr Lys Glu Gln Asn Pro Ser Val Phe 70 75 Leu Asn Ala Thr Tyr Ser Ser His Val Cys Ser Asp Ser Glu Ala Arg 90 Ala Ile Tyr Tyr Asn Gly Ser Phe Phe Gly Lys Thr Arg Asn Glu Lys 105 Arg Ile Thr Arg Trp Gly Pro Gly Ser Pro Leu Gln Asp Pro Glu Asn 120 125 Thr Gly Gly Leu Ser Ile Leu Ala Phe Glu His Glu Pro Gly Ser Asp 135 140 Ser Lys Asn Val Asp Val Trp Val Cys Lys Asn Pro Asp Glu Glu Asp 150 155

Ile Val Glu Ser Ile Leu Gly Glu Ile Ile Pro Gly Ala Leu 165 <210> 6143 <211> 81 <212> PRT <213> Enterobacter cloacae <400> 6143 Pro Lys Ser Leu Leu Ile Gln Leu Gly Pro Asn Pro Gly Thr Phe Arg 10 Arg Val Leu Asn Asn Lys Lys Phe His Leu Pro Phe Pro Asn Gln Lys Pro Asn Glu Phe Gly Ser Leu Asn Thr Pro Gln Leu Pro Asn Gly Ser Phe Pro Gly Val Pro Gly Ala Asn Thr Pro Ala Gly Val Leu Ser Ile Pro Leu Leu Pro Thr Gly Asp Ile Phe Pro Ala Arg Tyr Glu Leu Val <210> 6144 <211> 105 <212> PRT <213> Enterobacter cloacae <400> 6144 Thr Met Ile Cys Ala Ala Cys Arg Lys Pro Ala Val Gly Ala Gly Met 10 Thr Ile Thr Arg Ser Gly Val Met Arg Arg Ala Pro Leu Ala Met Arg 20 25 Leu Arg Ala Asn Ser Thr Trp Ala Met Leu Glu Phe Val Phe Asn Gly 35 40 4.5 Met Val Phe Leu Leu Gly Leu Gln Leu Pro Gly Gln Leu Trp Lys 55 60 Ser Ser Ala Glu Leu Pro Ala Gln Ser Arg Phe Gln Asn Leu Gly Asn 70 75 Ser Gly Ile Pro Ile Asn Arg Asn Pro Cys Ser Ser Asn Leu Ala Leu 90 85 Ile Leu Val Leu Ser Gly Gly Phe 100 105 <210> 6145 <211> 98 <212> PRT <213> Enterobacter cloacae <400> 6145 Cys Leu His Lys Pro His Glu Asp Ile Pro Met Lys Lys Arg Phe Ser Asp Glu Gln Ile Ile Ser Ile Leu Arg Glu Ala Glu Ala Gly Val Pro Ala Arg Glu Leu Cys Arg Lys His Ala Ile Ser Asp Ala Thr Phe Tyr 40 Ile Trp Arg Lys Lys Tyr Gly Gly Met Glu Val Pro Glu Val Lys Arg 55 Leu Lys Ser Leu Glu Glu Glu Asn Ala Arg Leu Lys Lys Leu Leu Ala 75 70 Glu Ala Met Leu Asp Lys Glu Ala Leu Gln Val Ala Leu Gly Arg Lys

90

```
Tyr
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<210> 6146 <211> 703

```
<212> PRT
<213> Enterobacter cloacae
<400> 6146
Pro Glu Arg Gly Trp Glu Pro Ile Met Ser Asp Ser Lys Arg Thr Asn
                                    10
Leu His Ala Gln Glu Asn Phe Tyr Arg Pro Ile Leu Glu Tyr Arg Ser
                                25
            20
Ala Ser Ile Leu Leu Ile Cys Ser Val Ser Met Leu Tyr Met Gly Leu
                            40
                                                 45
Ser Ser Asp Gly Leu Asp Ile Ala Pro Ile Val Leu Phe Thr Ser Ile
Leu Leu Phe Leu Leu Cys Leu Tyr Arg Cys Lys Thr Ala Ala Pro Phe
                    70
                                        75
Leu Met Ala His Trp Arg Val Phe Lys Arg His Phe Met Phe Val Ser
                                    90
Leu Asp Ser Leu Arq Val Ile Asn Lys Ser Asn Phe Phe Ser Asn Glu
                                1.05
Arg Lys Tyr Arg Gln Leu Val Gln Asp Tyr Gln Asn Lys Asp
                            120
Ile Pro Glu Arg Lys Ser Tyr Phe Cys Asp Gly Phe Glu Trp Gly Pro
                        135
                                            140
Glu His Ala Asp Arg Ala Tyr Gln Ile Ala Asn Leu Ser Ser Asp Lys
                    150
                                        155
Arg Glu Ile Glu Leu Pro Phe Val Phe Asn Pro Ile Lys Arg His Phe
                                    170
Asp Ala Met Ala Arg Lys Met Gly Gly Ser Asn Ala Ile Phe Ala Val
                                185
                                                     190
Glu Arg Arg Glu Pro Ile Phe Val Thr Glu Asp Asn Trp Phe Gly His
        195
                            200
                                                205
Thr Leu Ile Thr Gly Asn Val Gly Thr Gly Lys Thr Val Leu Gln Arg
                        215
                                            220
Leu Leu Ser Ile Ser Met Leu His Leu Gly His Val Val Val Ile
                    230
                                        235
Asp Pro Lys Asn Asp Ala Glu Trp Arg Glu Ser Leu Met Glu Glu Ala
                245
                                    250
Lys Thr Leu Gly Leu Pro Phe Tyr Lys Phe His Pro Gly Gln Pro Ala
            260
                                265
                                                    270
Ser Ser Val Cys Ile Asp Val Cys Asn Thr Tyr Thr Asn Val Ser Asp
                            280
                                                285
Leu Thr Ser Arg Leu Leu Ser Leu Val Thr Val Pro Gly Glu Val Asn
                        295
                                            300
Pro Phe Val Gln Tyr Ala Lys Ala Leu Val Ser Asn Val Ile Ser Gly
                    310
                                        315
Leu Ser Tyr Ile Glu Lys Lys Pro Ser Ile Tyr Leu Ile His Lys Asn
                325
                                    330
Met Lys Ser His Met Ser Ile Val Asn Leu Thr Val Lys Val Met Glu
                                345
Ser Cys Tyr Ala Arg Tyr Tyr Gly Tyr Asp Val Trp Thr Glu Lys Val
                            360
Lys Tyr Val Ala Asn Asp Thr Leu Pro Val Arg Phe Lys Arg Leu Ala
                        375
                                            380
Glu Trp Phe Thr Ala His Phe Met Asn Tyr Glu Gly Ser Glu Gln Ile
                   390
                                        395
Asp Trp Leu Asp Thr Val Ser Gln Leu Ile Asp Tyr Ser Met Ser Asp
                405
                                    410
```

```
Pro Glu His Met Ala Lys Met Thr Ala Gly Ile Met Pro Val Phe Asp
            420
                                425
Met Leu Ile Glu Lys Pro Leu Asn Glu Leu Leu Ser Pro Asn Pro Asn
                            440
Ser Val Ser Ser Arg Glu Ile Val Thr Ser Glu Gly Met Phe Ser Thr
                        455
                                            460
Gly Gly Val Leu Tyr Ile Ser Leu Asp Gly Leu Ser Asn Pro Asp Thr
                    470
                                        475
Ala Ala Ala Ile Ser Gln Leu Ile Met Ser Asp Leu Thr Ser Cys Ala
                485
                                    490
Gly Ser Arg Tyr Asn Ala Gln Asp Gly Asp Met Ser Ala Asn Ser Arg
            500
                                505
Ile Ser Ile Phe Val Asp Glu Ala His Ser Ala Ile Asn Asn Pro Met
                            520
                                                 525
Ile Asn Leu Leu Ala Gln Gly Arg Ala Ala Lys Ile Ala Leu Phe Ile
                        535
                                             540
Cys Thr Gln Thr Ile Ser Asp Phe Ile Ala Ala Ala Ser Val Glu Thr
                    550
                                        555
Ala Asn Arg Ile Thr Gly Leu Cys Asn Asn Tyr Ile Ser Leu Arg Val
                565
                                    570
Asn Asp Thr Pro Thr Gln Thr Leu Val Val Glu Asn Phe Gly Lys Ser
                                                     590
            580
                                585
Ala Ile Ser Thr Asn Met Val Thr Tyr Thr Thr Gly Ser Glu Thr Ser
        595
                            600
Leu Pro His Asn Asn Phe Ser Gly Ser Ile Ser Glu Arg Lys Gln Thr
                        615
                                             620
Thr Leu Glu Glu Ser Ile Pro Lys Asp Leu Leu Gly Gln Val Pro Met
                    630
                                         635
Phe His Ile Val Ala Arg Leu Gln Asp Gly Arg Lys Val Val Gly Gln
                645
                                    650
Ile Pro Ile Ala Val Ala Glu Lys Gln Met Lys Pro Asn Thr Thr Leu
                                665
Ser Glu Met Leu Phe Lys Lys Ala Gly Lys Val Thr Leu Arg Gln Asn
                            680
Leu Asp Ile Lys Asn Leu Asn Lys Phe Leu Arg Lys Leu His
    690
                        695
                                             700
```

<210> 6147

<211> 871

<212> PRT

<213> Enterobacter cloacae

<400> 6147

Arg Pro Ser Thr Ser Arg Leu Pro Ala Ser Gly Leu Ser Ser Val Leu Ser Pro Lys Ser His Leu Lys Arg Leu Phe Ile Gln His Gly Phe Gly 20 25 Lys Gln Leu Leu Glu Ser Gly Val Leu Phe Leu Lys Arg Leu Gln Ala 40 4.5 Leu Asn Phe Arg His Leu His Thr Ala Ile Leu Leu Thr Pro Asp Val 55 Lys Arg Gly Ile Gly Asn Gly Met Leu Ala Ala Glu Phe Thr Gly Gly 70 75 Tyr Pro Ser Phe Gly Phe Ala Glu Asn Thr Asp Asp Leu Phe Val Gly 90 85 Lys Thr Leu Leu His Gly Asp Val Leu Met Trp Leu Met Lys Thr Leu 105 110 Leu Thr Ser Gly Cys Thr Asn Gln Arg Gly Ala Gly Gln Arg Asp Pro 120 Ile Met Gly Leu Arg Ser Asn Asp Ala Ala Ala Arg Ala Ile Ser Thr 135

Ile Lys His Asn Phe Thr Ser Ile Asn Ile Asn Asn Tyr Asn Ala Lys 150 155 Pro Met His Ile Ile Ile Val Asn Gly Glu Val Tyr Leu Asn Glu Asn 165 170 Ala Phe Leu Asp Phe Val Leu Asn Asp Phe Glu Leu His Lys Tyr Asn 180 185 Phe Pro Gln Gly Glu Ala Gly Lys Thr Val Leu Val Glu Ser Leu Val 200 Gln Arg Gly Tyr Val Glu Pro Tyr Asp Asp Glu Arg Val Val His Tyr 215 220 Phe Ile Pro Gly Ile Tyr Ser Glu Asn Glu Ile Ser Asn Ile Phe Arg 230 235 Asn Gly Ile Gly Lys Leu Glu Phe Tyr Asn Leu Leu Lys Leu Arg Trp 245 250 Ile Gly Leu Ile Phe Asp Ser Tyr Lys Ile Pro Asp Ser Val Pro Gly 260 265 Leu Phe Ser Val Asn Ala Asn Lys Asp Phe Ile Tyr Ile Asp Glu Gln 280 Lys Thr Val Thr Glu Tyr Arg Arg Pro Val Pro Gly Arg Asp Val Ile 300 295 Thr Lys Ile Thr Asp Thr Val Glu Thr Ala Val Leu Lys Val Asn Asp 310 315 Leu Gly Arg Ser Ser Ala Ser Ile Asp Val Asp Ile His Ser Lys Lys 330 325 Asn Glu Gly Ser Ser Asp Asp Phe Glu Lys Lys Ala Glu Ser Asp Asn 340 345 Glu Ile Asp Asn Asp Thr Gln Ile Val Lys Ser Glu Gly Glu Glu Ala 360 Ala Asp Pro Val Ile Pro Asp Ile Glu Glu Ser Glu Asp Glu Ser Ala 375 380 Lys Asp Thr Glu Ser His Val Leu Val Asn Gln Leu His Glu Leu Leu 390 395 Leu Ser Ala Pro Leu Ser Asn Asp Tyr Ile Val Cys Val Asp Ala Val 405 410 Pro Tyr Leu Asn Ile Asp Thr Thr Met Ala Leu Leu Pro Gly Leu Asp 425 Glu Lys Ala Phe Ser Glu Glu Pro Tyr Phe Gln Leu Thr Phe Arg Glu 440 Gly Ser Leu Asp Gly Met Trp Ile Val Arg Asp Ile Asp Asp Leu Arg 455 Leu Val Gln Leu Gly Asp Asn Cys Ala Gly Phe Gln Leu Thr Tyr His 475 470 Glu Pro Arg Arg Pro Thr Thr Leu Lys Ser Leu Phe Asn Thr Ser Met 485 490 Tyr Gln Ala Leu Val Ile Asn Asp Glu Ser Ser Val Glu Asn Ser Ala 505 Pro Arg Pro Lys Gln Thr Leu Glu Leu Pro Pro Pro Arg Val Asn Ala 520 525 Val Glu Glu His Ser Gly Asp Val Glu Tyr His Gly Thr Asp Ser Ala 535 540 Ser Ala Thr Gly Pro Leu Lys Thr Glu Ala Val Glu Tyr Glu His Tyr 550 555 Gln His Leu Phe Glu Lys Glu Asp.Glu Glu His Glu Ile Ile Asp Tyr 565 570 Thr Asp Phe Ser Gln Leu Ser Val Ser Arg Pro Glu Val Gly Ser Cys 580 585 Ala Thr Ser Ser Ser Val His Asn Glu Lys Leu Leu Ser Glu Pro Ser 600 605 Glu Leu Pro Glu Leu Asn Arg Glu Gln Asn Ala Asp Pro Gln Gly Thr 615 620 Asn Glu Arg Ser Met Asp Val Ser Val Gly Gln Glu Asn Ser Glu Pro

## 2410

```
630
                                        635
Asp Thr Glu Gly Asn Cys Pro Pro Pro Ala Glu Val Val Tyr Ser Gln
                645
                                    650
Thr Glu Ala Ala Thr Ser Val Met Ala Ser Glu Glu Pro Ala Leu
            660
                                665
Pro Pro Val Leu Glu Glu Ser Asn Gly Glu His Ala Pro Thr Asp Ala
                            680
                                                685
Lys Gly His His Leu Ser Pro Ala Leu Ala Arg Leu Phe Ala Pro Thr
                                            700
                        695
Ala Pro Val Glu Lys Gln Asn Pro Lys Arg Asn Arg Asn Lys Ser Ser
                                        715
                    710
Asp Lys Ala Glu Val Gln Lys Pro Ala Ser Pro Val Ser Gly His Asn
                                    730
                725
Leu Asn Ser Lys Val Phe Ala Ser Thr Glu Ser Asp Gln Asn Gly Glu
            740
                                745
Phe Ser Leu Ile Ser Glu Gly Asp Val Thr Glu Leu Glu Phe Val Glu
                            760
Ile Ala Leu Val Leu His Gln Ile Leu Ser Lys Met Glu Val Ala Phe
                        775
Lys Arg Lys Arg Lys Asn Arg Phe Met Val Ser Thr Pro Asn Thr Leu
                    790
                                        795
Tyr Leu Thr Gln Ser Cys Val Glu Lys Phe Gly Ser Gln Leu Glu Ala
                805
                                    810
Gln Asp Leu Phe Asn Lys Leu Pro Gln Tyr Leu Val Asn Ser Gly Ala
            820
                                825
Val Ile Asn Thr Lys Cys His Ala Phe Asn Met Pro Thr Leu Leu Ala
                            840
Ala Ser Asp Arg Ala Lys Val Asp Ile Glu Arg Ile Ile Asn Asn Leu
                       855
Lys Glu Ala Gly Asn Leu
```

<210> 6148

<211> 256

<212> PRT

<213> Enterobacter cloacae

<400> 6148

Ser Ser Ser Gln His Tyr Glu Ser Phe Ile Ser Thr Gly Ser Thr Met 10 Ile Glu Ile Glu Thr Arg Gln Leu Ser Glu His Glu Ile Ile His Ala 25 Phe Pro Ala Gly Lys Gly Glu Gln Pro Leu Pro Thr Val Val Phe Tyr 40 His Gly Phe Leu Ser Ser Lys Leu Val Tyr Ser Tyr Phe Ala Val Ala 55 Leu Ala Gln Ala Gly Phe Arg Val Val Met Pro Asp Ala Pro Asn His 70 75 Gly Ala Arg Phe Thr Gly Asp Glu Gln Ala Arg Leu Gly Leu Phe Trp 90 Gln Thr Leu His Gly Asn Leu Thr Glu Phe Ala Gly Leu Arg Asp Ala 105 Leu Leu Gln Ala Gly Leu Val Glu Gly Lys Arg Leu Ala Val Ala Gly 120 Ala Ser Met Gly Gly Met Thr Ala Leu Gly Ile Met Ala Arg His Pro 135 140 Glu Val Thr Ser Val Ala Cys Leu Met Gly Ser Gly Tyr Phe Thr Ser 150 155 Leu Ala Lys Thr Leu Phe Pro Pro Gln Ala Pro Gln Glu Ile Glu Thr 170 165 Leu Leu Ser Glu Trp Asp Val Ser His Ala Leu Ser Gln Leu Ala Asp

180 185 Arg Pro Leu Leu Trp His Gly Asp Ala Asp Asp Val Val Pro Thr 200 205 Gly Glu Thr Phe Arg Leu Gln Gln Ala Leu Gln Arg Glu Gly Leu Asp 215 220 Ser Asn Leu Thr Cys Leu Trp Gly Ala Gly Val Arg His Arg Ile Thr 230 235 Pro Glu Ala Leu Glu Ala Thr Val Ala Phe Phe Arg Gln His Leu 250 <210> 6149 <211> 253 <212> PRT <213> Enterobacter cloacae <400> 6149 Leu Met Thr Glu Ala Gln Arg His Gln Ile Leu Leu Glu Leu Leu Ala 10 Gln Thr Gly Phe Ile Thr Val Glu Lys Val Ile Glu Arg Leu Gly Ile 20 25 Ser Pro Ala Thr Ala Arg Arg Asp Ile Asn Lys Leu Asp Glu Ser Gly 40 Lys Leu Lys Lys Val Arg Asn Gly Ala Glu Ala Ile Ser Gln Gln Arg 55 60 Pro Arg Trp Thr Pro Met Asn Ile His Gln Ala Gln Asn His Asp Glu 70 75 Lys Val Arg Ile Ala Arg Ala Ala Ser Gln Leu Val Asn Pro Gly Glu 85 90 Ser Val Val Ile Asn Cys Gly Ser Thr Ala Phe Leu Leu Gly Arg Glu 105 110 Met Cys Gly Lys Pro Val Gln Ile Ile Thr Asn Tyr Leu Pro Leu Ala 120 125 Asn Tyr Leu Ile Asp Gln Glu His Glu Ser Val Val Ile Met Gly Gly 135 140 Gln Tyr Asn Lys Ser Gln Ser Ile Thr Leu Ser Pro Gln Asp Ser Glu 150 155 Asn Ser Leu Tyr Ala Gly His Trp Met Phe Thr Ser Gly Lys Gly Leu 170 Thr Ala Asp Gly Leu Tyr Lys Thr Asp Met Leu Thr Ala Met Ala Glu 185 Gln Asn Met Leu Asn Val Val Gly Lys Leu Val Val Leu Val Asp Ser 200 Ser Lys Val Gly Glu Arg Ala Gly Met Leu Phe Ser Arg Ala Glu Gln 215 220 Ile Ser Met Val Ile Thr Gly Lys Asn Ala Asn Pro Glu Ile Leu Ser 230 235 Lys Leu Glu Asp Gln Gly Val Thr Val Leu Arg Val 245 <210> 6150 <211> 77 <212> PRT <213> Enterobacter cloacae <400> 6150 Pro Asp Pro Ile Arg Gln Ala Thr Asp Val Thr Ser Gly Cys Leu Ala 10 Met Ile Pro Ser Ala Val Ile Pro Pro Ile Asp Ala Pro Ala Thr Ala 25 Ser Arg Phe Pro Ser Thr Ser Pro Ala Cys Lys Ser Ala Ser Arg Ser

<222>(366)

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Pro Ala Asn Ser Val Arg Leu Pro Cys Ser Val Cys Gln Asn Ser Pro
                        55
Ser Arg Ala Cys Ser Ser Pro Val Lys Arg Ala Pro
                    70
<210> 6151
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 6151
Met Ile His Asn Val Glu Ser Trp Ile Thr Val Ser Arg Tyr Phe His
                                    10
Ser Lys Ser Thr Ser Gln Ile Thr Leu Arg Glu His Ser Pro Lys Thr
                                25
Lys Phe Ala Asp Asn Tyr Thr Met Thr Ile Arg Lys Arg Asp Arg Phe
                            40
Met Arg Arg Leu Thr Ala Leu Leu Val Ser Leu Leu Ser Gly Cys
                        5.5
Ser Val Leu Gln Gly Thr Pro Glu Pro Ala Pro Pro Val Thr Asp His
                    70
Pro Gln Glu Ile Arg Arg Asn Gln Thr Glu Gly Leu Gln Arg Leu Gly
                85
                                    90
Thr Val Ser Ala Met Val Arg Gly Ser Pro Asp Asp Ala Glu Asp Ala
            100
                                105
Ile Glu Ala Gln Ala Val Ala Ala Lys Ala Asp Tyr Tyr Val Ile Thr
                            120
                                                 125
Met Ile Asp Glu Thr Ile Ile Thr Gly Gln Trp Tyr Ala Gln Gly Ile
                        135
Leu Tyr Arg Lys
145
<210> 6152
<211> 111
<212> PRT
<213> Enterobacter cloacae
<400> 6152
Val Tyr Ser Arg Arg Ile Ala Arg Arg Ile Pro Glu Thr Arg Glu Lys
                                    10
Glu Leu Thr Met Lys Arg Thr Leu Ala Leu Thr Thr Leu Leu Ser
Ala Gly Leu Leu Ser Thr Thr Ala Gln Ser Ala Glu Phe Ala Ser Ala
Asp Cys Val Thr Gly Leu Asn Glu Ile Gly Gln Ile Ser Val Asn Asn
Ile Thr Gly Ser Pro Gln Asp Val Glu Arg Val Val Ala Leu Lys Ala
                                        75
Asp Glu Gln Gly Ala Ser Trp Tyr Arg Ile Val Gln Met Gln Glu Asp
                85
                                    90
His His Val Asn His Trp Arg Val Gln Ala Ile Leu Tyr Ala
            100
                                105
<210> 6153
<211> 394
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
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<220> <221>UNSURE <222>(392) <400> 6153 Glu Gly Gly Ala Met Glu Gln Thr Trp Arg Trp Tyr Gly Pro Asn Asp Pro Val Ser Leu Asp Asp Val Arg Gln Ala Gly Ala Thr Gly Val Val 25 Thr Ala Leu His His Ile Pro Asn Gly Gln Val Trp Pro Val Glu Glu Ile Gln Lys Arg Gln Ala Gln Leu Ala Glu Lys Gly Leu Thr Trp Ser 55 Val Val Glu Ser Ile Pro Val His Glu Asp Ile Lys Thr His Ser Gly 75 Glu Cys Asp Thr Trp Ile Ala Asn Tyr Gln Gln Ser Ile Arg Asn Leu 85 90 Ala Ala Cys Gly Ile Asp Thr Val Cys Tyr Asn Phe Met Pro Ile Leu 100 105 110 Asp Trp Thr Arg Thr Asp Leu Glu Tyr Val Met Ala Asp Gly Ser Lys 120 125 Ala Leu Arg Phe Asp Gln Ile Ala Phe Ala Ala Phe Glu Leu His Ile 135 140 Leu Lys Arg Pro Gly Ala Glu Ala Asp Tyr Thr Ala Glu Glu Gln Gln 150 155 Gln Ala Leu Ala Trp Phe Asn Ala Ala Ser Glu Ala Asp Ile Glu Lys 165 170 Leu Val Arg Asn Ile Ile Ala Gly Leu Pro Gly Ala Glu Gly Tyr 180 185 Thr Leu Asp Gln Phe Arg Ala Arg Leu Ala Glu Tyr Gly Asp Ile Asp 200 Lys Asn Gln Leu Arg Glu Asn Met Ala His Phe Leu Arg Ala Ile Val 215 220 Pro Val Ala Glu Glu Val Gly Val Arg Leu Ala Val His Pro Asp Asp 230 235 Pro Pro Arg Pro Ile Leu Gly Leu Pro Arg Ile Val Ser Thr Ile Glu 250 Asp Met Gln Trp Leu Lys Glu Thr Val Asp Ser Ile Tyr Asn Gly Phe 265 Thr Met Cys Thr Gly Ser Tyr Gly Val Arg Ala Asp Asn Asp Leu Val 280 Arg Met Ile Glu Thr Phe Gly Asp Arg Ile His Phe Thr His Leu Arg 295 Ala Thr Cys Arg Glu Glu Asn Pro Lys Thr Phe His Glu Ala Ala His 310 315 Leu Gly Gly Asp Val Asn Met Val Ala Val Val Asp Ala Ile Leu Ser 325 330 Glu Lys Val Arg Arg Lys Gln Ala Gly Asp Val Arg Pro Ile Pro Phe 345 Arg Pro Asp His Gly His Gln Met Leu Asp Asp Leu Arg Xaa Lys Thr 360 365 Asn Pro Gly Tyr Ser Ala Ile Gly Arg Leu Lys Arg Met Ala Glu Leu 375 380 Pro Gly Ile Gln Leu Ala Leu Xaa Met Thr 390 <210> 6154 <211> 494 <212> PRT <213> Enterobacter cloacae

<400> 6154 Ser Gly Val Tyr Tyr Met Lys Thr Ile Ala Ser Thr Ala Leu Pro Ala His Val Gln Gln Pro Arg Tyr Asp Arg Glu Gln Leu Arg Ser Arg Ile 25 Val His Phe Gly Phe Gly Ala Phe His Arg Ala His Gln Ala Leu Leu Thr Asn Arg Val Leu Asn Ala Arg Gly Gly Asp Trp Gly Ile Cys Glu 55 Ile Ser Leu Phe Ser Gly Asp Val Leu Met Arg Gln Leu Arg Ala Gln 70 75 Asp His Leu Phe Thr Val Leu Glu Lys Gly Ala Glu Gly Asn Gln Pro 90 Ile Ile Ile Gly Ala Val Lys Glu Cys Leu Asn Ala Lys Leu Asp Ser 100 105 Leu Ala Ala Ile Ile Glu Lys Phe Cys Glu Pro Gln Val Ala Ile Val 120 Ser Leu Thr Ile Thr Glu Lys Gly Tyr Cys Ile Asp Pro Ala Thr Gly 135 140 Lys Leu Asp Met Gln Asn Ser Arg Ile Leu His Asp Leu Glu His Pro 150 155 Ser Glu Pro His Ser Ala Pro Gly Ile Leu Val Glu Ala Leu His Arg 170 Arg Arg Glu Arg Gly Leu Pro Ala Phe Thr Val Leu Ser Cys Asp Asn 180 185 Ile Pro Asp Asn Gly His Val Val Lys Asn Ala Val Leu Gly Met Ala 200 Gly Lys Arg Ser Ala Glu Leu Ala Ala Trp Ile Glu Ala His Val Ser 215 Phe Pro Gly Thr Met Val Asp Arg Ile Val Pro Ala Ala Thr Asp Ala 235 230 Ser Leu Ala Glu Ile Thr Gln Glu Leu Gly Val Glu Asp Pro Cys Ala 250 Ile Ser Cys Glu Pro Phe Ile Gln Trp Val Val Glu Asp Asn Phe Val 265 Ala Gly Arg Pro Glu Trp Glu Val Ala Gly Val Gln Met Val Glu Asp 280 Val Leu Pro Trp Glu Gln Met Lys Leu Arg Met Leu Asn Gly Ser His 295 Ser Phe Leu Ala Tyr Leu Gly Tyr Leu Ala Gly Tyr Ala His Ile Asn 310 315 Glu Cys Met Gln Asp Asp Ser Phe Arg Glu Ala Ala Arg Arg Leu Met 330 325 Leu Asn Glu Gln Ala Pro Thr Leu Arg Ile Thr Asn Val Asp Leu Thr 345 Ala Tyr Ala Asp Ser Leu Leu Asn Arg Phe Ala Asn Pro Ala Leu Gln 360 His Arg Thr Trp Gln Ile Ala Met Asp Gly Ser Gln Lys Leu Pro Gln 375 . 380 Arg Met Leu Asp Gly Ile Arg Val His Leu Glu Leu Asn Thr Ala Trp 390 395 Pro Leu Leu Ala Leu Gly Val Ala Gly Trp Met Arg Tyr Val Ser Gly 405 410 Thr Asp Glu Gln Gly Asn Ala Ile Asp Val Arg Asp Pro Leu Ser Asp 425 Lys Phe Gln Ala Ile Val Ala Thr Ser Ser Asp Ala Glu Arg Val Ser 440 Ala Leu Leu Thr Leu Asn Glu Ile Phe Gly Asp Asp Leu Pro Gln Asn 455 Pro Val Phe Val Glu Ala Ile Thr Gly Ala Tyr Gln Arg Leu Val Arg

<400> 6156

470 480 Leu Gly Ala His Gln Ala Val Ile Glu Thr Leu Lys Ile <210> 6155 <211> 342 <212> PRT <213> Enterobacter cloacae <400> 6155 Val Val Val Thr Thr Ser Gln Leu Phe Ile Gly Ala His Val Thr Lys Thr Asn Leu Ile Thr Gly Phe Leu Gly Ser Gly Lys Thr Thr Ser Ile 20 25 Leu His Leu Leu Ala Asn Lys Asp Pro Ala Glu Lys Trp Ala Val Leu 40 Val Asn Glu Phe Gly Glu Val Gly Ile Asp Gly Ala Leu Leu Ala Asp Ser Gly Ala Met Val Lys Glu Ile Pro Gly Gly Cys Met Cys Cys Val 70 Asn Gly Leu Pro Met Gln Val Gly Leu Asn Thr Leu Leu Arg Gln Gly 90 Lys Pro Asp Arg Leu Pro Ile Glu Pro Thr Gly Met Gly His Pro Lys 105 Gln Ile Leu Asp Leu Leu Thr Ala Pro Val Tyr Glu Pro Trp Leu Glu 120 Leu Arg Ala Thr Leu Cys Leu Leu Asp Pro Arg Gln Leu Leu Asp Glu 135 140 Lys Thr Ile Asn Asn Asp Asn Phe Arg Asp Gln Leu Ala Ser Ala Asp 150 155 Ile Ile Val Ala Asn Lys Ser Asp Arg Ala Thr Ala Glu Ser Gln Ala 165 170 Ala Phe Glu Ser Trp Trp Gln Gln Ala Gly Gly Arg Gln Tyr Val 185 Gln Thr Thr Gln Gly Asn Ile Asp Gly Ala Leu Leu Asp Leu Pro Arg 200 205 Leu Asn Gln Thr Gln Leu Pro Ala Ser Ala Glu His Ser His Ser His 215 220 Gly Thr Lys Gln Gly Leu Ala Ala Leu Ser Leu Pro Glu His Gln Arg 230 235 Trp Arg Arg Asn Leu Asn Ser Gly Gln Gly His Gln Ala Cys Gly Trp 245 250 Ile Phe Asp Ala Asp Thr Val Phe Asp Thr Ile Gly Ile Leu Glu Trp 265 Ala Arg Leu Ala Pro Val Glu Arg Val Lys Gly Ile Met Arg Thr Pro 280 Asp Gly Leu Val Arg Ile Asn Arg Gln Gly Glu Asp Phe Phe Ile Glu 295 300 Thr Gln Asn Val Ala Pro Pro Asp Ser Arg Ile Glu Leu Ile Ser Ala 310 315 Val Asn Thr Asp Trp Asn Ala Leu Gln Ser Ser Leu Leu Lys Leu Arg 330 Leu Ser Leu Gly Gly 340 <210> 6156 <211> 245 <212> PRT <213> Enterobacter cloacae

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Phe His Thr Leu Leu Lys Thr Met Thr Thr Arg Leu Pro Ala Ile Leu
                                    10
Leu Leu Asn Ala Ala Gly Leu Ala Leu Phe Phe Ser Trp Tyr Ile Pro
                                25
Ala Asp His Gly Phe Trp Phe Pro Leu Asp Ser Gly Leu Phe His Phe
Phe Asn Gln Ala Leu Ala Lys Ser Glu Ala Phe Leu Trp Leu Val Ala
                        55
Ile Thr Asn Asn Arg Ala Phe Asp Gly Cys Ser Leu Leu Ala Met Gly
                    70
Cys Leu Met Leu Ser Phe Trp Leu Lys Glu Asp Lys Thr Gly Arg Arg
                                    90
Arg Ile Leu Ile Ile Gly Leu Val Met Leu Leu Thr Ala Val Ile Ile
            100
                                105
Asn Gln Leu Ala Gln His Leu Met Pro Val Lys Arg Ala Ser Pro Ser
                            120
Leu Phe Phe Pro Asn Ile Asn Arg Val Ser Glu Leu Leu His Ile Pro
                        135
Thr Lys Asp Ala Ser Lys Asp Ser Phe Pro Gly Asp His Gly Met Met
                    150
                                        155
Leu Leu Ile Phe Ala Gly Phe Met Leu Arg Tyr Phe Gly Lys Lys Ala
                                    170
                                                        175
               165
Phe Ala Ile Ala Leu Val Ile Val Val Phe Ala Phe Pro Arg Val
                                185
           180
                                                    190
Met Ile Gly Ala His Trp Leu Thr Asp Ile Ala Val Gly Ser Leu Thr
                            200
       195
                                                205
Ala Val Leu Ile Gly Leu Pro Trp Val Leu Met Thr Pro Leu Ser Asp
                       215
                                            220
Arg Val Ile Gly Ile Phe Asp Arg Tyr Leu Pro Gly Lys Phe Lys Gln
                    230
                                        235
Val Arg Asn Lys
                245
<210> 6157
<211> 123
<212> PRT
<213> Enterobacter cloacae
<400> 6157
Glu Tyr Ala Arg Asp Gly Gln Ile Val Leu Asn Ile Ala Pro Arg Ala
                                   10
Val Gly Asn Leu Glu Leu Ala Asn Asp Glu Val Arg Phe Asn Ala Arg
                               25
Phe Gly Gly Val Pro Arg Gln Val Ser Val Pro Leu Ala Ala Val Leu
Ala Ile Tyr Ala Arg Glu Asn Gly Ala Gly Thr Met Phe Glu Pro Glu
Ala Ala Tyr Asp Glu Glu Val Ala Ser Leu Asn Asp Glu Glu Gly Gly
Val Gly Thr Glu Ser Glu Thr Val Met Ser Val Ile Asp Gly Asp Lys
                                    90
Pro Asp Arg Glu Asp Asp Asn Asp Pro Asp Asp Pro Pro Pro Arg
           100
                               105
Gly Gly Arg Pro Ala Leu Arg Val Val Lys
       115
                            120
<210> 6158
<211> 812
<212> PRT
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<213> Enterobacter cloacae

<400> 6158 Ile Thr Leu Asn Arg Asp Met Thr Val Cys Lys Lys Ser Arg Leu Ala 10 Leu Cys Val Arg Ala Ile Leu Cys Gly Thr Leu Pro Leu Val Val Leu 20 25 Ala Ser Pro Ser Leu Tyr Ala Arg Glu Val Thr Phe Asp Thr Gly Ile 40 45 Ile Gln Ser Arg Gly Leu Ser Pro Asp Leu Asn His Tyr Phe Ala Gln 55 Ala Pro Arg Phe Leu Pro Gly Thr His Ser Val Gln Val Lys Val Asn 70 75 Gly Lys Asp Arg Gly Thr Ala Ala Ala Arg Phe Asn Glu Asp Gly Glu 90 Leu Cys Ile Asp Lys Asp Phe Leu Asp Phe Ala Gly Ile Met Pro Val 105 Pro Leu Lys Ala Gly Glu Ala Cys His Asp Ile Arg Ser Asp Tyr Ala 120 125 Gln Ala Val Val Asn Ala Leu Pro Asn Gln Asp Ala Val Glu Leu Tyr 135 140 Leu Pro Gln Glu Ala Ile Asn Ser Leu Thr Ser Asn Ile Lys His Phe 150 155 Gln Gln Gly Gly Thr Ala Gly Leu Leu Asn Tyr Ser Leu Phe Ser Thr 165 170 Arg Asn Glu Tyr Gly Asp Ser Asp Asn Ser Arg Tyr Ser Gln Ala Ser 180 185 190 Leu Glu Ala Gly Phe Asn Thr Met Asp Trp Ser Val Arg Ser Arg Tyr 200 195 205 Ile Leu Thr Asp Asp Asp Gly Asp Lys Asn Ala Glu Ser Ile Tyr Thr 215 220 Tyr Ala Glu His Val Phe Val Pro Gln Arg Leu Thr Met Gln Val Gly 230 235 Glu Ile Asn Ala Met Ser Gly Val Leu Ser Gly Val Pro Ile Thr Gly 245 250 Val Gln Leu Met Pro Thr Asn Gly Leu Glu Arg Asp Gly Thr Gly Val 265 Ser Val Ser Gly Ile Ala Arg Ser Ser Gln Ala Arg Val Glu Val Arg 280 Gln Ser Gly Arg Leu Val Tyr Ser Thr Leu Val Pro Ala Gly Pro Phe 295 Thr Leu Asp Asp Val Pro Val Val Arg Asn Asn Val Asp Leu Asp Val 310 Thr Val Val Glu Ser Asp Gly Ser Ser Ser His Phe Ile Val Pro Ala 330 325 Ser Ala Val Arg Thr Arg Lys Leu Gly Arg Pro Gln Gly Leu Thr Met 345 Ser Val Gly Gln Val Arg Ser Ile Asp Ser Asp Tyr Ser Asp Pro Leu 360 Val Ala Asn Val Ser Asp Gly Trp Arg Ile Thr Pro Trp Met Asn Val 375 380 Leu Ala Ser Gly Ala Val Ala Glu Lys Tyr Gln Ala Ala Gly Gly Ser 390 395 Ala Glu Phe Met Leu Ser Asp Ile Trp Gly Ile Thr Thr Ala Ala 405 410 Ala Ser Lys Glu Gln Phe Gly Asp Ser Asn Ser Gly Leu Lys Thr Glu 420 425 430 Leu Gln Ser Asp Leu Thr Leu Gly Glu His Val Ser Leu Ser Ala Ser 440 Ala Thr His Phe Ser Ser Gly Tyr Arg Glu Leu Ala Asp Ala Leu Asp 455 Asp Glu Phe Gln Pro Asn Asp Asn Thr Tyr Ser Gly Asn Val Ser Phe

```
Ala Thr Gly Ile Ala Gly Thr Phe Ser Ala Gly Phe Asn Tyr Asn Gln
                485
                                    490
Ser Ala Asn Tyr Glu Asp Ser Arg Tyr Leu Leu Leu Ser Trp Gly Lys
            500
                                505
Thr Phe Lys Tyr Ala Ser Ile Thr Val Asn Trp Gln Ser Ala Val Gly
        515
                            520
                                                525
Asn Thr Asp Asp Glu Gln Asp Asp Asp Met Leu Tyr Val Asn Leu Ser
                        535
                                           540
Ile Pro Leu Gly Gly Ser Gln Ser Leu Ser Ser Tyr Met Arg Lys Gln
                    550
                                        555
Gly Asp Arg Thr Thr Tyr Gly Val Ala Asn Ser Gly Ala Ile Gly Asp
                565
                                    570
Asn Thr Asn Tyr Tyr Ile Ser Ala Asp Arg Asp Asn Asp Asn Glu
                                585
Asn Ser Phe Asn Gly Asn Ile Asn Thr Asn Leu His Tyr Thr Gln Leu
                            600
Ser Val Gly Gly Gly Ser Ser Gly Ser Asn Gln Arg Asn Tyr Ser Ala
                        615
                                            620
Thr Leu Thr Gly Gly Ile Ala Met His Lys Asp Gly Val Thr Phe Ser
                    630
                                        635
Pro Tyr Ala Ile Lys Asp Thr Phe Ala Ile Ala Lys Leu Asn Glu Pro
                                    650
                645
Lys Ser Gly Val Glu Ile Ser Thr Pro Gln Gly Thr Ile Trp Thr Asp
            660
                                665
                                                    670
His Trp Gly Gln Ala Val Val Pro Gly Leu Asn Glu Trp Arg Asn Ser
        675
                            680
                                                685
Arg Ile Glu Ile Asp Ala Asn Lys Leu Pro Pro Ser Met Thr Leu Ala
                        695
                                            700
Asn Gly Ile Lys Tyr Val Ala Ala Gly His Ala Ser Val Ser Glu Val
                    710
                                        715
Ser Phe Lys Ile Leu Asn Ser Arg Val Met Leu Arg Val Lys Arg
                                    730
                725
Ala Asp Gly Thr Pro Leu Ala Lys Gly Leu Ser Ile Val Asp Glu Lys
           740
                                745
                                                    750
Gly Asn Tyr Ile Val Thr Ser Val Asp Asp Gly His Val Phe Ile Asn
                            760
       755
                                                765
Asp Ala Asp Gln Leu Lys Gly Leu Tyr Ala Met Asp Asp Asn Asn Asn
                        775
                                            780
Arg Leu Cys Gln Ile His Tyr Thr Leu Ser Asp Lys Lys Asp Asp Glu
                    790
                                        795
Ala Phe Tyr Glu Glu Val Asn Gly Val Cys Gln
                805
```

<210> 6159

<211> 272

<212> PRT

<213> Enterobacter cloacae

<400> 6159

Tyr Phe Lys Ile Gly Ile Leu Ile Lys Asn Gly Ile Asn Ile Ser Cys 10 Leu Phe Leu Ser Asn Tyr Thr Trp Thr Trp Asn Val Val Leu Trp Ile 25 Lys Gly Val Ile Ile Met Ser Cys Leu Lys Lys Thr Leu Leu Lys Ser 40 45 Val Ile Ala Ala Ala Leu Phe Ser Ala Gln Phe Ser Thr Tyr Ala Ala 55 60 Gly Met Val Pro Glu Thr Ser Leu Leu Val Ile Asp Glu Ala Thr His 70 75 Ser Gly Thr Ile Asn Val Lys Asn Thr Asp Ser Phe Pro Ala Leu Leu 85 90

```
Tyr Thr Asn Val Leu Asp Leu Pro Asp Asp Gln Gly Leu Lys Leu Ile
           100
                               105
Ser Thr Gln Pro Val Val Arg Leu Glu Pro Gly Gln Thr Gln Gln Leu
                                                125
                            120
Arg Phe Ile Leu Gln Asn Lys Glu Pro Leu Glu Ala Glu His Tyr Lys
                       135
                                            140
Arg Val Thr Phe Glu Gly Ile Pro Pro Lys Ser Asp Asn Lys Asn Ile
                    150
                                       155
Lys Ile Gly Phe Asn Leu Arg Gln Asp Leu Pro Val Leu Ile Arg Pro
               165
                                    170
Ala Lys Leu Ala Val Val Thr Asp Ala Trp Lys Tyr Leu Glu Trp Asn
                                185
Ala Thr Gly Thr Thr Leu Thr Val Lys Asn Pro Ser Lys Tyr Val Val
                            200
Arg Leu Ala Gln Asn Val Met Thr Gln Pro Ser Gly Thr Ala Gly Thr
                        215
                                            220
Leu Pro Lys Thr Tyr Ile Leu Pro Gly Gln Ser Met Thr Ala Thr Leu
                    230
                                        235
Lys Lys Thr Val Ser Gly Asp Asn Lys Val Lys Phe Phe Pro Ala Ser
                                    250
                245
Arg Tyr Gly Val Glu Val Pro Ser Phe Val Ser Glu Leu Asn Lys
            260
                                265
<210> 6160
<211> 227
<212> PRT
<213> Enterobacter cloacae
<400> 6160
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Arg Met Lys Lys Val Leu Ile Ala Thr Ala Leu Ser Leu Cys Val Ala 10 Ser Ala Phe Ala Ala Asp Thr Ala Val Leu Gln Val Lys Gly Lys Leu 20 25 Thr Asn Ala Ala Cys Thr Pro Glu Leu Ser Lys Gly Val Val Asp 40 45 Tyr Gly Thr Ile His Pro Gly Ser Leu Ser Ala Ser Ala Val Asn Gln 55 Leu Gly Gln Asn Asn Ile Asp Leu Thr Ile Thr Cys Ser Ala Ala Thr 70 Lys Val Ser Trp Thr Met Val Asp Asp Arg Ala Glu Thr Asn Ala Gly 85 90 Leu Thr Val Asn Asn Ala Met Phe Thr Gly Ala Ser Leu Ser Asn Ser 100 105 110 Ser Gln Thr Tyr Gly Val Gly Lys Thr Thr Gly Gly Val Asn Ile Gly 120 125 Ser Tyr Ala Met Phe Val Lys Val Asp Ser Val Thr Ala Asp Gly Ala 135 140 Thr Val Asp Pro Ile Tyr Thr Gln Asn Gly Asp Thr Ser Lys Trp Thr 150 155 Thr Ser Thr Asn Gly Ser Ser Gln Ala Gln Asn Ile Arg Glu Phe Thr 170 165 Val Ala Lys Ser Gly Glu Lys Val Pro Leu Ala Phe Leu Ser Ala Thr 185 180 190 Phe Pro Leu Val Thr Ser Leu Ala Ile Gln Asp Thr Thr Thr Leu Ala 200 205 Ile Thr Asp Asp Thr Thr Leu Asp Gly Gln Leu Thr Ile Ser Leu Lys 215 220

Tyr Leu 225

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<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 6161
Gln Met Lys Lys Val Leu Leu Ala Thr Ala Leu Ser Leu Cys Val Ala
Ser Ala Phe Ala Ala Asp Thr Ala Val Leu Gln Val Lys Gly Lys Leu
                                25
            20
Thr Asn Ala Ala Cys Thr Pro Gln Leu Ser Asn Gly Gly Val Val Asp
                            40
                                                45
Tyr Gly Thr Ile His Leu Gly Glu Leu Ser Ala Thr Ala Val Asn Gln
                        55
Leu Gly Asp Lys Asp Ile Asn Leu Thr Ile Thr Cys Gly Ala Pro Thr
                    70
Gln Val Gly Trp Val Val Asp Asp Asn Arg Glu Phe Lys
<210> 6162
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 6162
Phe Phe Leu Thr Gln Ile Asp Thr Val Leu Val Leu Phe Arg Leu Pro
Ala Trp Trp Asn Asp Phe Ile Ala Gly Leu Val Leu Gly Val Leu
Val Leu Asp Gly Arg Leu Arg Gln Ala Leu Ala Arg His Gln Arg Ala
Leu Lys Tyr Ser Arg Phe Gln Pro Gly Asn Lys Gly Gly Lys His Val
                        5.5
Thr Pro Phe Pro Lys Arg Lys Lys Glu Val Ala
                    70
<210> 6163
<211> 326
<212> PRT
<213> Enterobacter cloacae
<400> 6163
Met Arg Leu Asn Trp Glu Ser Ala Leu Leu Ile Leu Leu Val Leu Glu
                                    10
Ile Leu Leu Phe Gly Ala Ile Asn Pro Arg Met Leu Asp Ile Asn Met
                                25
Leu Leu Phe Ser Thr Ser Asp Phe Ile Cys Ile Gly Ile Val Ala Leu
                            40
Pro Leu Thr Leu Val Ile Ile Ser Gly Gly Ile Asp Ile Ser Leu Gly
                        55
                                            60
Ser Thr Ile Gly Leu Cys Ala Ile Ala Leu Gly Val Met Met Gln Ala
                   70
                                        75
Gly Trp Pro Met Ala Val Ala Ile Pro Leu Thr Leu Leu Gly Leu
                                    90
Leu Cys Gly Leu Val Asn Ala Ala Leu Ile His Tyr Thr Gly Ile Ser
                                105
Pro Leu Val Ile Thr Leu Gly Thr Leu Tyr Leu Tyr Gly Gly Ala
                            120
                                                125
Leu Leu Ser Gly Met Ala Gly Ala Thr Gly Tyr Glu Gly Ile Gly
                       135
                                           140
```

Gly Phe Pro Asp Ser Phe Thr Ala Phe Ala Asn Leu Thr Val Leu Gly

155

```
2421
Leu Pro Ile Pro Leu Val Leu Phe Ala Val Ile Thr Ala Phe Phe Trp
                                    170
               165
Leu Ile Thr His Arg Gly Arg Phe Gly Arg His Leu Phe Leu Ile Gly
            180
                                185
Gln Asn Pro Arg Ala Ala Arg Tyr Ala Ala Leu Pro Val Asn Gly Met
                            200
Pro Tyr Ala Leu Tyr Gly Leu Val Gly Val Ala Ser Ala Ile Ala Ala
                        215
                                            220
Leu Val Met Val Ser Tyr Phe Gly Ser Ala Arg Ser Asp Leu Gly Arg
                    230
                                        235
Asp Leu Leu Met Pro Ala Leu Thr Ala Ala Val Leu Gly Gly Ala Asn
               245
                                    250
Ile Tyr Gly Gly Ser Gly Ser Val Val Gly Thr Ala Leu Ala Ala Leu
            260
                                265
Leu Val Gly Tyr Leu Gln Gln Gly Leu Gln Met Val Gly Ile Pro Asn
       275
                            280
                                                285
Gln Val Ser Ser Ala Leu Ser Gly Ala Leu Leu Val Val Val Met
                                            300
                        295
Gly Arg Ser Leu Ser Leu His Arg Glu Trp Val Arg Ser Leu Phe Arg
                    310
                                        315
Lys Leu Ser Gly Ala
               325
<210> 6164
<211> 326
<212> PRT
<213> Enterobacter cloacae
<400> 6164
Gly Glu Gly Gln Arg His Arg Ala Ala Gly Ala Arg Gly Val His
Gln Arg Glu His Gln Gln Ile Arg Phe Leu Thr Gly Glu Gln Met Ala
                                25
Asp Leu Asp Asp Ile Lys Asp Gly Lys Asp Phe Gly Ile Gly Thr Pro
Gln Gln Asn Val Pro Tyr Thr Leu Lys Gly Cys Gly Ser Leu Asp Trp
Gly Met Gln Ser Arg Leu Ser Arg Ile Phe Asn Pro Gln Ser Asn Arg
Thr Val Met Leu Ala Phe Asp His Gly Tyr Phe Gln Gly Pro Thr Thr
                                    90
Gly Leu Glu Arg Ile Asp Leu Ser Ile Ala Pro Leu Phe Gly Glu Thr
                               105
Asp Val Leu Met Cys Thr Arg Gly Ile Leu Arg Ser Gln Val Pro Ala
                           120
Ala Thr Asn Lys Pro Val Val Leu Arg Ala Ser Gly Gly Asn Ser Ile
                       135
                                            140
Leu Gly Glu Leu Ser Asn Glu Cys Val Ala Val Ala Met Glu Asp Ala
                    150
                                        155
```

Glu Phe Glu His Gln Ser Ile Asn Asn Val Ile Lys Leu Val Asp Ala 180 185 Gly Ala Arg Tyr Gly Met Pro Thr Leu Ala Val Thr Gly Val Gly Lys

Leu Arg Leu Asn Val Cys Ala Val Ala Ala Gln Val Tyr Ile Gly Ser

170

165

200 Glu Met Ala Arg Asp Ala Arg Tyr Phe Ser Leu Ala Ser Arg Ile Ala 215 220

Ala Glu Met Gly Ala Gln Phe Val Lys Thr Tyr Tyr Val Asp Glu Gly 230 235

Phe Glu Lys Val Thr Ala Ser Cys Pro Val Pro Ile Val Ile Ala Gly 245 250

Gly Lys Lys Leu Pro Glu His Glu Ala Leu Glu Met Cys Trp Arg Ala 260 265 Ile Asp Gln Gly Ala Ser Gly Val Asp Met Gly Arg Asn Ile Phe Gln 280 285 Ser Ser Ala Pro Leu Ala Met Leu Lys Ala Val Lys Lys Val Val His 295 300 Glu Asn Met Ser Ala Arg Glu Ala Phe Gln Phe Trp Gln Glu Glu Lys 310 Gln Gly Glu Ala Lys <210> 6165 <211> 352 <212> PRT <213> Enterobacter cloacae <400> 6165 Val Cys Thr Ala Asn Gly Cys Asp Leu Ser Ser Glu Asn Tyr Pro Glu 10 Arg Lys Met Lys Thr Lys Leu Leu Val Leu Ala Met Ala Leu Ser Phe 20 25 Ala Ser Ala Gln Ala Ala Asp Arg Ile Ala Phe Ile Pro Lys Leu Val 40 Gly Val Gly Phe Phe Thr Ser Gly Gly Asn Gly Ala Lys Glu Ala Gly 55 Lys Val Leu Gly Val Asp Val Thr Tyr Asp Gly Pro Thr Glu Pro Ser 70 75 Val Ser Gly Gln Val Gln Leu Ile Asn Asn Phe Val Asn Gln Gly Tyr 90 Asn Ala Ile Ile Val Ser Ala Val Ser Pro Asp Gly Leu Cys Pro Ala 105 110 Leu Lys Arg Ala Met Gln Arg Gly Val Lys Val Leu Thr Trp Asp Ser 120 Asp Thr Lys Pro Glu Cys Arg Ser Ile Tyr Ile Asn Gln Gly Thr Pro 135 Glu Gln Leu Gly Gly Leu Leu Val Glu Met Ala Gly Lys Gln Val Thr Lys Pro Asn Ala Lys Val Ala Phe Phe Tyr Ser Ser Pro Thr Val Thr 170 165 Asp Gln Asn Gln Trp Val Lys Glu Ala Lys Ala Lys Ile Glu Lys Asp 185 His Pro Gln Trp Gln Val Val Thr Thr Gln Phe Gly Tyr Asn Asp Ala 200 Thr Lys Ser Leu Gln Thr Ala Glu Gly Ile Leu Lys Ala Tyr Ser Asp 215 220 Leu Asp Ala Ile Ile Ala Pro Asp Ala Asn Ala Leu Pro Ala Ala Ala 230 235 Gln Ala Ala Glu Asn Leu Lys Arg Glu Gly Val Ala Ile Val Gly Phe 245 250 Ser Thr Pro Asn Val Met Arg Pro Tyr Val Glu Arg Gly Thr Val Lys 260 265 270 Ala Phe Gly Leu Trp Asp Val Val Gln Gln Gly Lys Ile Ala Val Asn 285 280 Val Ala Asp Arg Leu Leu Lys Lys Gly Asp Leu Asn Val Gly Asp Ser 295 300 Val Asp Val Lys Asn Ile Gly Thr Leu Lys Val Glu Pro Asn Ser Val 310 315

Gln Gly Tyr Gln Tyr Glu Ala Lys Gly Asn Gly Ile Val Leu Leu Pro

345

Glu Arg Val Val Phe Thr Lys Glu Asn Ile Ser Lys Tyr Asp Phe

330

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<210> 6166
<211> 181
<212> PRT
<213> Enterobacter cloacae
<400> 6166
Lys Ser Asp Arg Gln Leu Pro Gly Ala Asp Arg Tyr Arg Gly Gln
                                    10
Lys Ala Ala Gly Ala Arg Gly Ala Gly Asp Val Leu Ala Arg Asp Arg
                                25
            20
Pro Gly Arg Val Arg Arg Gly His Gly Ala Gln His Leu Pro Val Gln
                            40
        35
Arg Ala Ala Arg His Ala Glu Gly Gly Glu Glu Ser Gly Ser Arg Glu
                        55
His Glu Arg Pro Gly Gly Val Pro Val Leu Ala Gly Arg Glu Thr Gly
                    70
                                        75
Arg Ser Lys Met Asn Val Thr Leu Val Glu Ile Asn Ile Lys Pro Glu
                8.5
                                    90
Arg Val Asp Glu Phe Leu Glu Val Phe Arg Ala Asn His Glu Gly Ala
            100
                                105
                                                    110
Ile Lys Glu Pro Gly Asn Leu Arg Phe Asp Val Leu Gln Asp Pro Arg
                            120
Val Lys Thr Arg Phe Phe Ile Tyr Glu Ala Tyr Lys Asp Glu Lys Ala
                        135
                                            140
Val Leu Ala His Lys Gln Thr Pro His Tyr Leu Ala Cys Val Asp Lys
                    150
                                        155
Leu Glu Glu Leu Met Ser Glu Pro Arg Lys Lys Arg Ser Phe Val Gly
                                    170
Leu Leu Pro Glu
            180
<210> 6167
<211> 446
<212> PRT
<213> Enterobacter cloacae
<400> .6167
Ile Leu Pro Asn Glu Arg Asn Gly Leu Leu Tyr Thr Pro Gly Ser Ile
His Trp Arg His Asp Ile Met Ala Asn Thr Ile Thr Ala Asp Asp Ile
Arg Glu His Phe Ser Gln Ala Met Ser Ala Met Tyr Gln Gln Glu Val
                            40
Pro Gln Tyr Gly Thr Leu Leu Glu Leu Val Ala Asp Val Asn Leu Ala
Val Leu Glu Asn Asn Pro Leu Leu His Glu Gln Leu Ala Asn Ala Asp
                    70
                                        75
Glu Leu Ala Arg Leu Asn Val Glu Arg His Gly Ala Ile Arg Val Gly
                                    90
                85
Thr Ala Gln Glu Leu Ser Thr Leu Arg Arg Ile Phe Ala Ile Met Gly
                                                    110
                                105
            100
Met Tyr Pro Val Ser Tyr Tyr Asp Leu Ser Gln Ala Gly Val Pro Val
                            120
                                                125
His Ser Thr Ala Phe Arg Pro Thr Asp Asp Ala Ala Leu Cys Arg Asn
                        135
                                            140
Pro Phe Arg Ile Phe Thr Ser Leu Leu Arg Leu Glu Leu Ile Glu Asn
                   150
                                        155
Val Ala Leu Arg Glu Arg Ala Ala Glu Ile Leu Ser Arg Arg Asn Ile
                                    170
Phe Thr Pro Arg Cys Leu Glu Leu Ile Asp Leu His Asp Ala Gln Gly
```

```
180
                                185
His Phe Thr Glu Ala Gln Ala Arq Glu Phe Val Gln Glu Ala Leu Glu
                            200
Thr Phe Arg Trp His Arg His Ala Thr Val Asp Gln Glu Thr Tyr Leu
                       215
Ala Leu Ser Asn Glu His Arg Leu Ile Ala Asp Val Val Cys Phe Pro
                                        235
                    230
Gly Cys His Ile Asn His Leu Thr Pro Arg Thr Leu Asp Ile Asp Arg
                245
                                    250
Val Gln Glu Leu Met Pro Lys Tyr Gly Ile Glu Pro Lys Ile Leu Ile
                                265
Glu Gly Pro Pro Arg Arg Glu Val Pro Ile Leu Leu Arg Gln Thr Ser
                            280
Phe Lys Ala Leu Glu Glu Pro Val Leu Phe Ala Gly Glu His Lys Gly
                        295
                                            300
Thr His Thr Ala Arg Phe Gly Glu Ile Glu Gln Arg Gly Val Ala Leu
                    310
                                        315
Thr Pro Lys Gly Arg Glu Leu Tyr Asp Ser Leu Leu Asn Gln Ala Gly
                325
                                    330
Thr Gly Lys Asp Asn Leu Thr His Gln Leu His Leu Arg Glu Ile Phe
            340
                                345
Ser Ala Phe Pro Asp Ser Glu Met Phe Leu Arg Arg Gln Gly Leu Ala
                            360
Tyr Phe Arg Tyr Arg Leu Thr Pro Thr Gly Glu Ala His Arg His Ala
                        375
Phe Arg Pro Gly Val Asp Pro Gln Pro Leu Ile Glu Arg Gly Trp Val
                    390
                                        395
Val Ala Gln Pro Ile Thr Tyr Glu Asp Phe Leu Pro Val Ser Ala Ala
                405
                                    410
Gly Ile Phe Gln Ser Asn Leu Gly Tyr Glu Thr Gln Ala Arg Ile His
                                425
Gly Asn Ala Ser Arg Asn Ala Phe Gln Ala Ala Pro Leu Pro
                            440
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<210> 6168
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<400> 6168

Leu Val Thr Arg Val Ala Leu Phe Leu Thr Ser Pro Met Glu Lys Asn 10 Gly Leu Phe Ser Gln Arg Ile Arg Leu Arg His Leu His Thr Phe Val 25 Ala Val Ala Gln Gln Gly Thr Leu Gly Arg Ala Ala Glu Thr Leu Asn 40 Leu Ser Gln Pro Ala Leu Ser Lys Thr Leu Asn Glu Leu Glu Gln Leu 55 60 Thr Gly Thr Arg Leu Phe Asp Arg Gly Arg Leu Gly Ala Gln Leu Thr 70 7.5 Leu Val Gly Glu Gln Phe Leu Thr His Ala Val Lys Val Leu Asp Ala 8.5 90 Leu Asn Thr Ala Gly Gln Ala Leu Asn Arg Lys Glu Glu Pro Ala Ser 100 105 Asp Ile Val Arg Val Gly Ala Leu Pro Thr Ala Ala Leu Gly Ile Leu 120 Pro Ala Ala Ile Gly Gln Phe His Arg Gln Gln Lys His Ala Thr Leu 135 Gln Val Ala Thr Met Asn Asn Thr Met Leu Leu Ala Gly Leu Lys Ser 155 Gly Glu Leu Asp Leu Gly Ile Gly Arg Met Ser Asp Pro Glu Leu Met

<sup>&</sup>lt;211> 320

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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165
                                    170
Ser Gly Leu Asn Tyr Glu Leu Leu Phe Leu Glu Ser Leu Lys Leu Val
                                185
Val Arg Pro Asn His Pro Leu Leu Gln Asp Thr Val Thr Leu Ser Arg
                            200
Val Met Glu Trp Pro Val Val Val Ser Pro Lys Gly Thr Val Pro Arg
                        215
                                            220
Gln Asn Ala Glu Ala Leu Leu Gln Met Gln Gly Cys Thr Leu Pro Ser
                    230
                                        235
Gly Cys Ile Glu Thr Leu Ser Ala Ser Leu Ser Arg Gln Leu Thr Val
                245
                                    250
Asp Tyr Asp Tyr Val Trp Phe Val Pro Ser Gly Ala Val Lys Asp Asp
            260
                                265
                                                    270
Leu Arg Arg Gly Val Leu Thr Ala Leu Pro Val Thr Ser Pro Gly Ala
        275
                            280
                                                285
Gly Glu Pro Ile Gly Ile Leu Thr Arg Val Asp Ala Pro Leu Ser Glu
                        295
Gly Ala Gln Thr Leu Leu Ser Ala Ile Arg Lys Ser Met Pro Leu
                                        315
<210> 6169
<211> 346
<212> PRT
<213> Enterobacter cloacae
<400> 6169
Ala Asn Gln Val Val Met Lys Lys Met Leu Arg Phe Val Leu Leu
Ile Val Ala Leu Gly Ile Ala Gly Gly Ala Gly Val Trp Lys Val Arg
                                25
Gln Leu Ala Glu Ser Gln Ile Leu Ile Lys Asp Glu Thr Ile Phe Thr
                            40
                                                45
Leu Lys Ala Gly Thr Gly Arg Gln Ala Leu Gly Gln Gln Leu Tyr Asp
                        5.5
                                            60
Asp Lys Ile Ile Asn Arg Pro Arg Val Phe Gln Trp Leu Leu Arg Ile
                    70
                                        75 .
Glu Pro Asp Leu Ser His Phe Lys Ala Gly Thr Tyr Arg Phe Thr Pro
                                    90
                85
Gly Met Thr Val Arg Glu Met Leu Gln Leu Glu Ser Gly Lys Glu
           100
                                105
Ala Gln Phe Pro Leu Arg Phe Val Glu Gly Met Arg Leu Ser Asp Tyr
       115
                        . 120
                                                125
Leu Arg Gln Leu Arg Asp Ala Pro Tyr Ile Lys His Thr Leu Lys Asp
                        135
                                            140
Asp Arg Tyr Gln Thr Val Ala Asp Ala Leu Lys Phe Glu His Pro Glu
                    150
                                        155
Trp Val Glu Gly Trp Phe Trp Pro Asp Thr Trp Met Tyr Thr Ala Gly
               165
                                    170
Thr Thr Asp Val Ala Ile Leu Lys Arg Ala His Asn Lys Met Val Ala
           180
                               185
Ala Val Asp Ala Ala Trp Lys Gly Arg Ala Glu Gly Leu Pro Tyr Lys
                            200
Asp Gln Asn Gln Phe Met Thr Met Ala Ser Ile Ile Glu Lys Glu Thr
                        215
                                            220
Ala Val Ala Ala Glu Arg Asp Gln Val Ala Ser Val Phe Ile Asn Arg
                    230
                                        235
Leu Arg Ile Gly Met Arg Leu Gln Thr Asp Pro Thr Val Ile Tyr Gly
               245
                                    250
Met Gly Glu Asn Tyr Asn Gly Arg Ile Ser Arg Lys Asp Leu Glu Thr
                               265
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Pro Thr Ala Tyr Asn Thr Tyr Val Ile Ser Gly Leu Pro Pro Gly Pro

280 275 Ile Ala Thr Pro Ser Glu Ala Ser Leu Lys Ala Ala Ala His Pro Ala 295 300 290 Lys Thr Pro Tyr Leu Tyr Phe Val Ala Asp Gly Lys Gly Gly His Thr 315 310 Phe Asn Thr Asn Leu Ala Ser His Asn Arg Ser Val Gln Asp Tyr Leu 325 330 Lys Ala Leu Lys Glu Lys Asn Ala Gln 340 <210> 6170 <211> 253 <212> PRT <213> Enterobacter cloacae <400> 6170 Tyr Ser Ala Asp Cys Tyr Ala Val Ala Thr Gly Ala Ala Gly Met Lys 10 Trp Tyr Pro Trp Leu Arg Pro His Phe Glu Gln Leu Ile Gly Ser Tyr 20 25 Gln Val Gly Arg Gly His His Ala Leu Leu Ile Gln Ala Leu Pro Gly 40 4.5 Met Gly Asp Asp Ala Leu Ile Tyr Ala Ile Thr Arg Phe Leu Met Cys 55 Gln Gln Pro Glu Gly His Lys Ser Cys Gly Lys Cys Arg Gly Cys Gln 70 75 Leu Met Gln Ala Gly Thr His Pro Asp Tyr Tyr Thr Leu Glu Pro Glu 90 85 Lys Gly Lys Asn Thr Leu Gly Ile Asp Ala Val Arg Glu Val Ser Glu 100 105 110 Lys Leu Tyr Glu Tyr Ala Arg Leu Gly Gly Ala Lys Val Val Trp Leu 120 125 Lys Asp Ala Ala Leu Leu Thr Glu Ala Ala Ala Asn Ala Leu Leu Lys 135 140 Thr Leu Glu Glu Pro Pro Glu Asn Thr Trp Phe Phe Leu Ser Cys Arg 150 155 Glu Pro Glu Arg Leu Leu Ala Thr Leu Arg Ser Arg Cys Arg Leu His 170 His Leu Ala Val Pro Gln Glu Ser Trp Ser Leu Ala Trp Leu Glu Arg 185 Glu Val Thr Val Ser Gln Asp Ala Ala Arg Ser Ala Leu Arg Leu Cys 200 Ser Gly Ala Pro Ala Ala Ala Leu Ala Leu Leu Gln Pro Glu Val Trp 215 220 Ser Gln Arg Glu Thr Leu Cys Arg Ala Val Glu Ser Ala Leu Glu Ser 230 235 Ser Pro Arg Glu Leu Asp Arg Ile Pro Ala Tyr Ala His 245 <210> 6171 <211> 433 <212> PRT <213> Enterobacter cloacae <400> 6171 Val Leu Ser Phe Val Val Pro Arg Ile Ser Phe Phe Ile Pro Pro Trp Arg Thr Ser Val Ser Lys Arg Arg Val Val Thr Gly Leu Gly Met 25

Leu Ser Pro Val Gly Asn Thr Val Glu Ser Thr Trp Lys Ala Leu Leu

Ala Gly Gln Ser Gly Ile Ser Leu Ile Asp His Phe Asp Thr Ser Ala Tyr Ala Thr Lys Phe Ala Gly Leu Val Lys Asp Phe Asn Cys Glu Glu 75 Ile Ile Ser Arg Lys Glu Gln Arg Lys Met Asp Ala Phe Ile Gln Tyr 85 Gly Ile Val Ala Gly Val Gln Ala Met Gln Asp Ser Gly Leu Glu Ile 100 105 Thr Glu Glu Asn Ala Thr Arg Ile Gly Ala Ala Ile Gly Ser Gly Ile 120 125 Gly Gly Leu Gly Leu Ile Glu Glu Asn His Thr Ser Leu Met Asn Gly 135 140 Gly Pro Arg Lys Ile Ser Pro Phe Phe Val Pro Ser Thr Ile Val Asn 150 155 Met Val Ala Gly His Leu Thr Ile Met Phe Gly Leu Arg Gly Pro Ser 165 170 Ile Ser Ile Ala Thr Ala Cys Thr Ser Gly Val His Asn Ile Gly Gln 185 Ala Ala Arg Ile Ile Ala Tyr Gly Asp Ala Asp Ala Met Val Ala Gly 200 Gly Ala Glu Lys Ala Ser Thr Pro Leu Gly Val Gly Gly Phe Gly Ala 215 220 Ala Arg Ala Leu Ser Thr Arg Asn Asp Asn Pro Gln Ala Ala Ser Arg 230 235 Pro Trp Asp Lys Asp Arg Asp Gly Phe Val Leu Gly Asp Gly Ala Gly 245 250 Met Ile Val Leu Glu Glu Tyr Glu His Ala Lys Lys Arg Gly Ala Lys 265 Ile Tyr Ala Glu Val Val Gly Phe Gly Met Ser Ser Asp Ala Tyr His 280 Met Thr Ser Pro Pro Glu Asn Gly Ala Gly Ala Ala Leu Ala Met Glu 295 300 Asn Ala Ile Arg Asp Ala Gly Ile Thr Pro Ala Gln Ile Gly Tyr Val 310 315 Asn Ala His Gly Thr Ser Thr Pro Ala Gly Asp Lys Ala Glu Ala Gln 325 330 Ala Val Lys Ser Ile Phe Gly Glu Ser Ala Ser Arg Val Leu Val Ser 345 Ser Thr Lys Ser Met Thr Gly His Leu Leu Gly Ala Ala Gly Ala Val 355 360 Lys Ser Ile Tyr Ser Ile Leu Ala Leu Arg Asp Gln Ala Val Pro Pro 375 380 Thr Ile Asn Leu Asp Asn Pro Asp Glu Gly Cys Asp Leu Asp Phe Val 390 395 Pro His Glu Ala Arg Gln Val Ser Gly Met Glu Tyr Thr Leu Cys Asn 405 410 Ser Phe Gly Phe Gly Gly Thr Asn Gly Ser Leu Ile Phe Lys Lys Val 425

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<210> 6172
<211> 273
<212> PRT
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<213> Enterobacter cloacae

<400> 6172

Gly Ala Thr Met Phe Leu Ile Asn Gly Leu Glu Gln Asp Thr Leu Pro  $1 \\ 5 \\ 10 \\ 15 \\ Ala Ser Asp Arg Ala Thr Gln Phe Gly Asp Gly Cys Phe Thr Thr Ala <math>20 \\ 25 \\ 30 \\ 30 \\$ 

Arg Ile Leu Asp Gly Asp Val Cys Leu Leu Gly Ala His Ile Leu Arg 40 Leu Gln Lys Ala Cys Glu Thr Leu Leu Ile Pro Phe Ser Gln Trp Asp 55 Ile Leu Glu Ser Glu Met Arg Arg Leu Ala Ser Glu Lys Ala Ser Gly 70 75 Val Leu Lys Val Ile Ile Ser Arg Gly Ser Gly Gly Arg Gly Tyr Ser 90 Gly Ser Ala Cys Leu His Pro Thr Arg Ile Leu Ser Val Ser Asp Tyr 100 105 Pro Ser His Tyr Ala His Trp Arg Glu Glu Gly Val Ala Leu Ala Leu 120 Ser Pro Val Arg Leu Gly Arg Asn Pro Met Leu Ala Gly Ile Lys His 135 140 Leu Asn Arg Leu Glu Gln Val Leu Ile Arg Thr His Leu Glu Gln Thr 150 155 Glu Ala Gly Glu Ala Leu Val Leu Asp Ser Glu Gly Tyr Ile Thr Glu 170 165 Cys Cys Ala Ala Asn Leu Leu Trp Arg Lys Gly Ser Glu Val Phe Thr 180 185 190 Pro Ser Leu Glu Gln Ala Gly Val Asn Gly Ile Met Arg Gln Phe Cys 195 200 205 Met His Leu Leu Ala Arg Ala Gly Phe Arg Val Val Glu Val Asn Ala 215 220 Lys Glu Glu Ala Leu Leu Ala Ala Asp Glu Val Val Ile Cys Asn Ala 230 235 Leu Met Pro Val Val Pro Val Arg Ala Tyr Gly Arg Lys Cys Trp Ser 245 250 Ser Arg Glu Leu Phe Gln Phe Leu Ala Pro Leu Cys Glu Gln Thr Arg 260 265

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<210> 6173
<211> 220
<212> PRT
<213> Enterobacter cloacae
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<400> 6173 Arg His Leu Arg Lys Lys Met Arg Ser Lys Tyr Ile Val Ile Glu Gly 10 Leu Glu Gly Ala Gly Lys Thr Thr Ala Arg Asn Val Val Val Asp Thr 25 Leu Thr Ser Leu Gly Val Ala Asp Met Val Phe Thr Arg Glu Pro Gly 45 40 Gly Thr Gln Leu Ala Glú Lys Leu Arg Ser Leu Val Leu Asp Ile Lys 55 Ser Val Gly Asp Glu Val Ile Thr Asp Lys Ala Glu Val Leu Met Phe 70 75 Tyr Ala Ala Arg Val Gln Leu Val Glu Thr Val Ile Lys Pro Ala Leu 85 90 Ala Glu Gly Lys Trp Val Ile Gly Asp Arg His Asp Leu Ser Thr Gln 105 Ala Tyr Gln Gly Gly Gly Arg Gly Ile Asp Gln Thr Met Leu Ala Thr 120 Leu Arg Asn Ala Val Leu Gly Asp Phe Arg Pro Asp Leu Thr Leu Tyr 135 Leu Asp Val Thr Pro Glu Val Gly Leu Lys Arg Ala Arg Ala Arg Gly 150 155 Glu Leu Asp Arg Ile Glu Gln Glu Ser Phe Asp Phe Phe Asn Arg Thr

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Arg Ala Arg Tyr Leu Glu Leu Ala Gly Gln Asp Lys Thr Ile Arg Thr
                                185
Ile Asp Ala Thr Gln Ser Leu Glu Asp Val Thr Arg Asp Ile Gln Gln
                            200
Thr Val Thr Gln Trp Leu Gln Glu Gln Gln Ala
<210> 6174
<211> 336
<212> PRT
<213> Enterobacter cloacae
<400> 6174
Leu Val Glu Tyr Met Thr Ile Lys Val Gly Ile Asn Gly Phe Gly Arg
                                    10
Ile Gly Arg Ile Val Phe Arg Ala Ala Gln Lys Arg Ser Asp Ile Glu
Ile Val Gly Ile Asn Asp Leu Leu Asp Ala Glu Tyr Met Ala Tyr Met
        35
Leu Lys Tyr Asp Ser Thr His Gly Arg Phe Asp Gly Thr Val Glu Val
                        55
                                             60
Lys Asp Gly His Leu Val Val Asn Gly Lys Thr Ile Arg Val Thr Ala
                    70
Glu Lys Asp Pro Ala Asn Leu Lys Trp Asn Glu Ile Gly Val Asp Val
                85
                                    90
Val Ala Glu Ala Thr Gly Ile Phe Leu Thr Asp Glu Thr Ala Arg Lys
                                105
His Ile Thr Ala Gly Ala Lys Lys Val Val Leu Thr Gly Pro Ser Lys
                            120
                                                 125
Asp Asn Thr Pro Met Phe Val Arg Gly Ala Asn Phe Glu Thr Tyr Ala
                        135
Gly Gln Asp Ile Val Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala
                    150
                                        155
Pro Leu Ala Lys Val Ile Asn Asp Asn Phe Gly Ile Ile Glu Gly Leu
                                    170
Met Thr Thr Val His Ala Thr Thr Ala Thr Gln Lys Thr Val Asp Gly
                                185
Pro Ser His Lys Asp Trp Arg Gly Gly Arg Gly Ala Ala His Asn Ile
                            200
Ile Pro Ser Ser Thr Gly Ala Ala Lys Ala Val Gly Lys Val Leu Pro
                        215
                                             220
Glu Leu Asn Gly Lys Leu Thr Gly Met Ala Phe Arg Val Pro Thr Pro
                    230
                                        235
Asn Val Ser Val Val Asp Leu Thr Val Arg Leu Glu Lys Ala Ala Ser
                                    250
Tyr Glu Glu Ile Lys Lys Ala Ile Lys Ala Ala Ser Glu Gly Pro Met
                                265
                                                     270
Lys Gly Val Leu Gly Tyr Thr Glu His Asp Val Val Ser Thr Asp Phe
                            280
Asn Gly Glu Val Cys Thr Ser Val Phe Asp Ala Lys Ala Gly Ile Ala
                                            300
                        295
Leu Asn Asp Asn Phe Val Lys Leu Val Ser Trp Tyr Asp Asn Glu Thr
                    310
                                        315
Gly Tyr Ser Asn Lys Val Leu Asp Leu Ile Ala His Ile Ser Lys
                                    330
                325
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<sup>&</sup>lt;210> 6175

<sup>&</sup>lt;211> 300

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6175 Thr Glu Asp Cys Leu Met Ile Asn Lys Ile Phe Ala Leu Pro Val Val Glu Gln Leu Thr Pro Val Leu Ser Arg Arg Gln Ile Asp Gly Ala Asp 20 25 Ile Ile Val Val Asp His Pro Arg Val Lys Ala Ser Val Ala Leu Asn 40 Gly Ala His Leu Leu Ser Trp Lys Pro Glu Gly Glu Glu Gly Leu 55 Trp Leu Ser Glu Ala Thr Ser Phe Lys Arg Gly Ala Ala Ile Arg Gly 75 Gly Val Pro Ile Cys Trp Pro Trp Phe Gly Pro Ser Ala Gln Gly 90 Leu Pro Ser His Gly Phe Ala Arg Asn Gln Gln Trp Thr Leu Lys Ala 105 His Asn Glu Asp Glu Asn Gly Ala Val Leu Thr Phe Glu Leu Gln Ala 120 125 Asn Asp Glu Thr Arg Ala Leu Trp Pro His Glu Phe Thr Leu Tyr Ala 135 140 Arg Phe Lys Leu Gly Lys Thr Cys Glu Ile Glu Leu Glu Ala His Gly 150 155 Glu Phe Glu Thr Thr Ser Ala Leu His Thr Tyr Phe Asn Val Gly Asp 165 170 175 Ile Gln Ala Val Lys Val Ser Gly Leu Gly Asp Thr Phe Ile Asp Lys 180 185 190 Val Asp Asn Ala Lys Glu Gly Lys Leu Asp Asp Gly Val Gln Thr Phe 195 200 205 Pro Asp Arg Thr Asp Arg Val Tyr Leu His Pro Glu Ala Cys Ser Val 215 220 Ile His Asp Ser Ala Leu Asn Arg Gly Ile Asp Val Val His His His 230 235 His Ser Asn Val Val Gly Trp Asn Pro Gly Pro Ala Leu Ser Val Ser 245 250 Met Ala Asp Ile Pro Asp Asp Gly Tyr Lys Thr Phe Val Cys Val Glu 265 260 270 Thr Ala Cys Val Thr Ala Pro Gln Lys Thr Ser Glu Glu Lys Pro Ser 280 Arg Leu Gly Gln Thr Ile Lys Ile Val Lys Arg 300 295 <210> 6176 <211> 525 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(525) <400> 6176 Lys Thr Lys Gly Arg His Ala Met Asn Ile Phe Asp His Tyr Arg Gln 10 Arg Tyr Glu Ala Ala Lys Asp Glu Glu Phe Thr Leu Gln Glu Phe Leu 25 Thr Ile Cys Arg Gln Asp Arg Ser Ala Tyr Ala Asn Ala Ala Glu Arg Leu Leu Met Ala Ile Gly Glu Pro Asn Met Val Asp Thr Ala Leu Glu 55 Pro Arg Leu Ser Arg Leu Phe Ser Asn Arg Val Val Ala Arg Tyr Pro

75

Ala Phe Glu Glu Phe Tyr Gly Met Glu Asp Ala Ile Glu Gln Ile Val

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90
               85
Ser Tyr Leu Lys His Ala Ala Gln Gly Leu Glu Lys Lys Gln Ile
                                105
           100
                                                   110
Leu Tyr Leu Leu Gly Pro Val Gly Gly Lys Ser Ser Leu Ala Glu
                            120
                                                125
Arg Leu Lys Ala Leu Met Gln Arg Val Pro Ile Tyr Val Leu Ser Ala
                        135
                                            140
Asn Gly Glu Arg Ser Pro Val Asn Asp His Pro Leu Cys Leu Phe Asn
                   150
Pro Gln Glu Asp Ala Gln Ile Leu Glu Lys Glu Phe Gly Ile Pro His
               165
                                    170
Arg Tyr Leu Gly Thr Ile Met Ser Pro Trp Ala Ala Lys Arg Leu His
           180
                                185
Glu Phe Gly Gly Asp Ile Thr Lys Phe Arg Val Val Lys Val Trp Pro
                            200
       195
Ser Ile Leu Glu Gln Ile Ala Ile Ala Lys Thr Glu Pro Gly Asp Glu
                        215
                                            220
Asn Asn Gln Asp Ile Ser Ala Leu Val Gly Lys Val Asp Ile Arg Lys
                   230
                                        235
Leu Glu His His Ala Gln Asn Asp Pro Asp Ala Tyr Gly Tyr Ser Gly
                                   250
               245
Ala Leu Cys Arg Ala Asn Gln Gly Ile Met Glu Phe Val Glu Met Phe
           260
                               265
                                                    270
Lys Ala Pro Ile Lys Val Leu His Pro Leu Leu Thr Ala Thr Gln Glu
                           280
                                               285
Gly Asn Tyr Asn Gly Thr Glu Gly Ile Ser Ala Leu Pro Phe Asn Gly
                       295
                                           300
Ile Ile Leu Ala His Ser Asn Glu Ser Glu Trp Val Thr Phe Arg Asn
                   310
                                       315
Asn Lys Asn Asn Glu Ala Phe Leu Asp Arg Val Tyr Ile Val Lys Val
               325
                                   330
                                                        335
Pro Tyr Cys Leu Arg Ile Ser Glu Glu Ile Lys Ile Tyr Glu Lys Leu
                               345
Leu Asn His Ser Glu Leu Val His Ala Pro Cys Ala Pro Gly Thr Leu
                           360
Glu Thr Leu Ser Arg Phe Ser Ile Leu Ser Arg Leu Lys Glu Pro Glu
                       375
                                            380
Asn Ser Ser Ile Tyr Ser Lys Met Arg Val Tyr Asp Gly Glu Ser Leu
                   390
                                       395
Lys Asp Thr Asp Pro Lys Ala Lys Ser Tyr Gln Glu Tyr Arg Asp Tyr
                                    410
Ala Gly Val Asp Glu Gly Met Asn Gly Leu Ser Thr Arg Phe Ala Phe
                               425
Lys Ile Leu Ser Arg Val Phe Asn Phe Asp His Ala Glu Val Ala Ala
                           440
Asn Pro Val His Leu Phe Tyr Val Leu Glu Gln Gln Ile Glu Arg Glu
                        455
                                            460
Gln Phe Pro Gln Glu Gln Ala Glu Arg Tyr Leu Glu Phe Leu Lys Gly
                                       475
                   470
Tyr Leu Ile Pro Lys Tyr Ala Glu Phe Ile Gly Lys Glu Ile Gln Thr
                                    490
               485
Ala Tyr Leu Glu Ser Tyr Ser Glu Tyr Gly Gln Asn Ile Phe Glu Ser
           500
                                505
Ser Pro Arg Gly Ser Lys Asp His Glu Arg Ser Arg Xaa
                            520
```

<sup>&</sup>lt;210> 6177

<sup>&</sup>lt;211> 258

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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<400> 6177
Leu Phe Asp Tyr Arg Lys Glu Trp Ile Val Thr Lys Leu Lys Leu Leu
                                    10
Ala Leu Gly Ile Leu Ala Ala Thr Ala Ala Ser Thr Val Gln Ala Glu
            20
                                25
Ser Gln Trp Thr Val Gly Ala Gly Ala Gly Val Ile Asn Ser Pro Tyr
Lys Gln Tyr Asp Arg Asp Val Tyr Pro Val Pro Val Val Thr Tyr Glu
Gly Asp Asn Phe Trp Phe Arg Gly Leu Gly Gly Gly Tyr Tyr Leu Trp
                                        75
                                                             80
Asn Asp Thr Ala Asp Lys Leu Ser Ile Met Ala Tyr Tyr Asp Pro Thr
                85
                                    90
His Phe Lys Pro Gly Asp Ser Asp Ser Asn Ala Leu Arg Gln Leu Asp
                                105
Lys Arg Arg Ser Ser Leu Met Ala Gly Leu Ser Tyr Val His Asn Thr
                            120
Glu Tyr Gly Phe Leu Arg Thr Ala Leu Ala Gly Asp Thr Leu Asp Asn
    130
                        135
                                             140
Ser Asn Gly Phe Ile Trp Asp Leu Ala Trp Leu Tyr Arg Tyr Thr Asn
                    150
                                        155
Gly Ala Val Thr Leu Thr Pro Gly Ile Gly Val Gln Tyr Ser Ser Glu
                165
                                    170
                                                      · 175
Asn Tyr Asn Asp Tyr Tyr Gly Val Ser Lys Ala Glu Ser Arg Arg
            180
                                185
                                                     190
Ser Gly Leu Asn Ser Tyr Ser Ala Asp Asp Gly Trp Asp Pro Tyr Leu
                            200
                                                205
        195
Glu Leu Thr Ala Ser Tyr Asn Phe Leu Gly Asp Trp Asn Val Tyr Gly
                        215
                                            220
Thr Gly Arg Tyr Ile Arg Leu Ser Asp Glu Val Lys Asp Ser Pro Met
                    230
                                        235
Val Asp Lys Ser Trp Ser Gly Ile Phe Ser Val Gly Val Thr Tyr Lys
                                    250
Phe
<210> 6178
<211> 61
<212> PRT
<213> Enterobacter cloacae
<400> 6178
Asn Val Asp Phe Leu Gln Gly Asp Phe Arg Asp Glu Leu Val Leu Lys
                                    10
Ala Leu Leu Asp Arg Val Gly Asp Ser Lys Val Gln Val Val Met Ser
                                25
Asp Met Ala Pro Asn Met Cys Gly Asn Thr Gly Gly Gly Tyr Pro Pro
                            40
Arg His Val Ser Gly Gly Thr Ser Val Arg Asn Val Ser
<210> 6179
<211> 311
<212> PRT
<213> Enterobacter cloacae
<400> 6179
Ser Val Cys Leu Tyr Leu Lys Pro Trp Ser Leu Leu Arg Gly Phe Ser
                                    10
Tyr Leu Phe Asn His Ile Asn Pro Arg Asp Phe Thr Met Lys Leu Phe
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Ala Gln Asp Ser His Leu Asp Leu Thr His Pro His Val Met Gly Ile
                            40
Leu Asn Val Thr Pro Asp Ser Phe Ser Asp Gly Gly Thr His Asn Ser
                        55
Leu Ile Asp Ala Val Lys His Ala Asn Leu Met Ile Asn Ala Gly Ala
                    70
                                        75
Thr Ile Ile Asp Val Gly Glu Ser Thr Arg Pro Gly Ala Ala Glu
                85
                                    90
Val Ser Val Glu Glu Leu Ala Arg Val Val Pro Val Val Glu Ala
                               105
Ile Ala Arg Arg Phe Glu Val Trp Ile Ser Val Asp Thr Ser Lys Pro
       115
                            120
                                                125
Glu Val Ile Arg Glu Val Ala Arg Val Gly Ala His Ile Ile Asn Asp
                        135
                                            140
Ile Arg Ser Leu Thr Glu Pro Gly Ala Ile Glu Ala Ala Ala Glu Thr
                    150
                                        155
Gly Leu Pro Val Cys Leu Met His Met Gln Gly Gln Pro Lys Thr Met
                                    170
Gln Glu Ala Pro Lys Tyr Glu Asp Val Phe Ala Asp Val Thr Arg Phe
                                185
Phe Ile Glu His Ile Glu Arg Cys Glu Arg Ala Gly Ile Ala Lys Glu
                            200
Lys Leu Leu Asp Pro Gly Phe Gly Phe Gly Lys Asn Leu Ser His
                        215
                                            220
Asn Tyr Ala Leu Leu Ala Arg Leu Ser Glu Phe His Gln Phe Gly Leu
                    230
                                        235
Pro Leu Leu Val Gly Met Ser Arg Lys Ser Met Ile Gly Gln Leu Leu
                245
                                    250
Asn Val Gly Pro Ser Glu Arg Leu Ser Gly Ser Leu Ala Cys Ala Val
                                265
Ile Ala Ala Met Gln Gly Ala His Ile Ile Arg Val His Asp Val Lys
                            280
Glu Thr Val Glu Ala Met Arg Val Val Glu Ala Thr Leu Ala Ala Lys
                        295
Glu Asn Lys Arg Tyr Glu
<210> 6180
<211> 96
<212> PRT
<213> Enterobacter cloacae
<400> 6180
Val Thr Val Arg Ser Arg Leu Ser Cys Arg Ile Trp Arg Gln Ile Cys
                                    10
Val Glu Thr Pro Ala Val Asp Ile Pro Arg Ala Met Tyr Leu Val Glu
                                25
Leu Ala Leu Glu Met Cys Arg Asp Val Leu Ala Pro Gly Gly Ser Phe
                            40
Val Val Lys Val Phe Gln Gly Glu Gly Phe Glu Glu Tyr Leu Lys Glu
                        55
Ile Arg Ser Leu Phe Ala Lys Val Lys Val Arg Lys Pro Asp Ser Ser
                   70
                                        75
Arg Ala Arg Ser Arg Glu Val Tyr Ile Val Ala Thr Gly Arg Lys
<210> 6181
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<sup>&</sup>lt;211> 653

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6181 Tyr Glu Val Asn Pro Leu Ser Asp Met Ala Lys Asn Leu Ile Leu Trp Leu Val Ile Ala Val Val Leu Met Ser Val Phe Gln Ser Phe Gly Pro 25 Ser Glu Ser Asn Gly Arg Lys Val Asp Tyr Ser Thr Phe Leu Gln Glu Val Asn Gln Asp Gln Val Arg Glu Ala Arg Ile Asn Gly Arg Glu Ile 55 Asn Val Thr Lys Lys Asp Ser Asn Arg Tyr Thr Thr Tyr Ile Pro Val 75 Asn Asp Pro Lys Leu Leu Asp Asn Leu Leu Thr Lys Asn Val Lys Val 90 8.5 Val Gly Glu Pro Pro Glu Glu Pro Ser Leu Leu Ala Ser Ile Phe Ile 105 100 Ser Trp Phe Pro Met Leu Leu Ile Gly Val Trp Ile Phe Phe Met 120 125 Arg Gln Met Gln Gly Gly Gly Lys Gly Ala Met Ser Phe Gly Lys 135 Ser Lys Ala Arg Met Leu Thr Glu Asp Gln Ile Lys Thr Thr Phe Ala 150 155 Asp Val Ala Gly Cys Asp Glu Ala Lys Glu Glu Val Gly Glu Leu Val 165 170 Glu Tyr Leu Arg Glu Pro Ser Arg Phe Gln Lys Leu Gly Gly Lys Ile 180 185 Pro Lys Gly Val Leu Met Val Gly Pro Pro Gly Thr Gly Lys Thr Leu 200 205 Leu Ala Lys Ala Ile Ala Gly Glu Ala Lys Val Pro Phe Phe Thr Ile 215 Ser Gly Ser Asp Phe Val Glu Met Phe Val Gly Val Gly Ala Ser Arg 230 235 Val Arg Asp Met Phe Glu Gln Ala Lys Lys Ala Ala Pro Cys Ile Ile 245 250 Phe Ile Asp Glu Ile Asp Ala Val Gly Arg Gln Arg Gly Ala Gly Leu 265 Gly Gly Gly His Asp Glu Arg Glu Gln Thr Leu Asn Gln Met Leu Val 280 Glu Met Asp Gly Phe Glu Gly Asn Glu Gly Ile Ile Val Ile Ala Ala 295 Thr Asn Arg Pro Asp Val Leu Asp Pro Ala Leu Leu Arg Pro Gly Arg 310 315 Phe Asp Arg Gln Val Val Gly Leu Pro Asp Val Arg Gly Arg Glu 325 330 Gln Ile Leu Lys Val His Met Arg Arg Val Pro Leu Ala Pro Asp Ile 340 345 Asp Ala Ala Ile Ile Ala Arg Gly Thr Pro Gly Phe Ser Gly Ala Asp 360 Leu Ala Asn Leu Val Asn Glu Ala Ala Leu Phe Ala Ala Arg Gly Asn 375 380 Lys Arg Val Val Ser Met Val Glu Phe Glu Lys Ala Lys Asp Lys Ile 390 395 Met Met Gly Ala Glu Arg Arg Ser Met Val Met Thr Glu Ala Gln Lys 405 410 Glu Ser Thr Ala Tyr His Glu Ala Gly His Ala Ile Ile Gly Arg Leu 420 425 Val Pro Glu His Asp Pro Val His Lys Val Thr Ile Ile Pro Arg Gly 440 Arg Ala Leu Gly Val Thr Phe Phe Leu Pro Glu Gly Asp Ala Ile Ser 455 460 Ala Ser Arg Gln Lys Leu Glu Ser Gln Ile Ser Thr Leu Tyr Gly Gly 470 475

Arg Leu Ala Glu Glu Ile Ile Tyr Gly Ala Glu His Val Ser Thr Gly 485 490 Ala Ser Asn Asp Ile Lys Val Ala Thr Asn Leu Ala Arg Asn Met Val 500 505 Thr Gln Trp Gly Phe Ser Asp Lys Leu Gly Pro Leu Leu Tyr Ala Glu 520 525 Glu Glu Gly Val Phe Leu Gly Arg Ser Val Ala Lys Ala Lys His 535 540 Met Ser Asp Glu Thr Ala Arg Ile Ile Asp Gln Glu Val Lys Ala Leu 550 555 Ile Glu Arg Asn Tyr Ala Arg Ala Arg Gln Ile Leu Asn Asp Asn Met 570 565 Asp Ile Leu His Ser Met Lys Asp Ala Leu Met Lys Tyr Glu Thr Ile 580 · 585 Asp Ala Pro Gln Ile Asp Asp Leu Met Ala Arg Arg Glu Val Arg Pro 600 Pro Ala Gly Trp Glu Asp Pro Gly Ala Ser Asn Asn Ser Asp Asn Asn 615 620 Gly Thr Pro Arg Ala Pro Arg Pro Val Asp Glu Pro Arg Thr Pro Asn 630 635 Pro Gly Asn Thr Met Ser Glu Gln Leu Gly Asp Lys 645

<210> 6182 <211> 375

<212> PRT

<213> Enterobacter cloacae

245

<400> 6182 Lys Pro Cys Val Trp Trp Lys Pro His Trp Gln Arg Arg Lys Thr Asn 10 Ala Met Ser Asn Arg Lys Tyr Phe Gly Thr Asp Gly Ile Arg Gly Arg 25 Val Gly Asp Ala Pro Ile Thr Pro Asp Phe Val Leu Lys Leu Gly Trp 45 40 Ala Ala Gly Lys Val Leu Ala Arg His Gly Ser Arg Lys Ile Ile Ile Gly Lys Asp Thr Arg Ile Ser Gly Tyr Met Leu Glu Ser Ala Leu Glu 70 75 Ala Gly Leu Ala Ala Gly Leu Ser Ala Ser Phe Thr Gly Pro Met 90 85 Pro Thr Pro Ala Val Ala Tyr Leu Thr Arg Thr Phe Arg Ala Glu Ala 105 Gly Ile Val Ile Ser Ala Ser His Asn Pro Phe Tyr Asp Asn Gly Ile 120 125 Lys Phe Phe Ser Ile Asp Gly Thr Lys Leu Pro Asp Asp Val Glu Glu 135 Ala Ile Glu Ala Glu Met Glu Lys Glu Ile Thr Cys Val Asp Ser Ala 155 Glu Leu Gly Lys Ala Asn Arg Ile Val Asp Ala Ala Gly Arg Tyr Ile 170 Glu Phe Cys Lys Gly Thr Phe Pro Asn Glu Leu Ser Leu Ala His Leu 185 180 Lys Ile Val Val Asp Cys Ala Asn Gly Ala Thr Tyr His Ile Ala Pro 200 205 Asn Val Phe Arg Glu Leu Gly Ala Lys Val Ile Thr Ile Gly Cys Glu 215 220 Pro Asp Gly Leu Asn Ile Asn Glu Glu Val Gly Ala Thr Asp Val Arg 230 235 Ala Leu Gln Ala Arg Val Leu Ala Glu Lys Ala Asp Leu Gly Ile Ala

Leu Asp Gly Asp Gly Asp Arg Val Ile Met Val Asp His Glu Gly Asn 260 265 Lys Val Asp Gly Asp Gln Ile Leu Tyr Ile Ile Ala Arg Glu Gly Leu 275 280 285 Arg Gln Gly Gln Leu Arg Gly Gly Ala Val Gly Thr Leu Met Ser Asn 295 300 Met Gly Leu Glu Leu Ala Leu Lys Gln Leu Gly Ile Pro Phe Val Arg 310 315 Ala Lys Val Gly Asp Arg Tyr Val Leu Glu Lys Leu Gln Glu Lys Gly 325 330 Trp Arg Ile Gly Ala Glu Asn Ser Gly His Val Ile Leu Leu Asp Lys 345 Thr Thr Thr Gly Asp Gly Ile Val Ala Ala Leu His Phe Ser Leu Gly 360 Val Ala Glu Pro Arg Ile Glu <210> 6183 <211> 726 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(65) <400> 6183 His Ala Ser Thr Gly Val Glu Asn Ser Pro Thr Pro Val Pro Ile Thr 10 Tyr Pro Ala Ser Gly Arg Leu Phe Phe Val Phe His Phe Phe Glu Leu 25 Ser Val Asp Asn Ile Ile Val Phe Arg Val Val Arg Arg Ser Ile Ser 40 45 Ala Arg Leu Leu Cys Val Leu Leu Leu Ser Asp Phe His Gln Leu 55 60 Xaa Arg Asn Leu Cys Gln Leu Leu His Leu Arg Phe Asp Val Arg Phe 70 75 Val Phe Ala Phe Gln Arg Arg Phe Gln Arg Ala Gln Cys Ser Phe Asp 85 90 Cys Ser Phe Val Phe Arg Trp Gln Phe Ile Ala Arg Phe Phe Asn Leu 105 Leu Thr Gly Ala Val Gln Gln Met Val Thr Leu Val Thr Gly Leu Asn 120 Gln Leu Phe Lys Leu Thr Val Gly Phe Arg Val Ser Phe Gly Ile Thr 135 Asn His Phe Phe Asp Phe Arg Phe Val Gln Ala Arg Arg Cys Leu Asp 150 155 Gly Asn Leu Leu Phe Thr Ala Val Phe Val Phe Arg Arg His Val 170 165 Gln Asp Thr Val Ser Ile Asp Val Glu Gly Asp Phe Asp Leu Trp His 180 185 Ala Ala Trp Cys Arg Val Asn Thr Val Gln Val Glu Leu Thr Gln Arg 195 200 205 Phe Val Ile Arg Arg Ala Leu Thr Leu Thr Leu Asn His Met Asp Gly 215 220 Tyr Arg Arg Leu Val Val Phe Ser Gly Arg Glu His Leu Ala Val Phe 230 235 Arg Arg Asp Ser Gly Val Phe Val Asp Glu Arg Ser His His Thr Ala 245 250 His Gly Phe Asp Thr Gln Arg Gln Arg Gly Asn Val Gln Gln Tyr

265

Val Phe His Phe Thr Gly Gln Tyr Thr Thr Leu Asn Arg Ser Thr Asp 275 280 285 Ser Asn Arg Phe Val Arg Val His Val Phe Thr Trp Leu Phe Thr Lys 295 300 Glu Phe Ser His Phe Leu Leu Asn His Arg His Thr Ser Leu Thr Thr 310 315 Tyr Gln Asp Asn Val Leu Asn Val Arg His Gly Gln Ala Ser Val Leu 325 330 Gln Cys Asn Phe Gln Trp Leu Asp Arg Thr Val His Gln Val Phe Tyr 345 Gln Ala Phe Gln Phe Arg Thr Gly His Phe Asp Val His Val Phe Trp 360 Thr Gly Arg Val Cys Ser Asp Val Arg Gln Val His Val Gly Leu Leu 375 380 Ser Gly Arg Gln Leu Asp Leu Arg Phe Leu Ser Gly Phe Phe Gln Ala 390 395 Leu His Ser Gln Arg Val Val Thr Gln Val Asn Ala Leu Ile Phe Leu 405 410 Glu Leu Val Asn Glu Val Val Asp Gln Thr Gly Ile Glu Val Phe Thr 420 425 Thr Gln Val Gly Ile Thr Val Gly Cys Gln Asn Phe Glu Gly Phe Phe 440 Ala Val Asn Ile Val Asp Phe Asp Asn Arg Asn Ile Glu Gly Thr Thr 455 460 Thr Gln Val Val Asn Arg Asp Ser Thr Val Ala Asn Phe Phe Ile Gln 470 475 Thr Val Ser Gln Cys Cys Cys Gly Trp Phe Val Asp Asp Thr Phe Tyr 485 490 Phe Gln Ala Cys Asp Thr Ala Ser Ile Phe Gly Cys Leu Thr Leu Ser 500 505 Ile Val Glu Val Ser Arg Tyr Gly Asp Asn Ser Phe Ser Tyr Arg Phe 520 Thr Gln Val Ile Phe Arg Ser Phe Leu His Phe Leu Gln His Phe Ser 535 540 Arg Asp Leu Arg Arg Cys Ser Phe Gly Ala Phe His Ile Lys Pro Cys 550 555 Ile Ala Val Ile Gly Cys Asp Asp Phe Val Arg His Asp Gly Asn Val 565 570 Thr Leu Asn Phe Phe Val Leu Glu Ala Ala Ala Asn Gln Ala Phe Asp 585 Arg Lys Gln Gly Val Leu Arg Val Cys His Cys Leu Thr Phe Ser Arg 600 Leu Thr Asn Gln Ser Phe Thr Ile Leu Gly Ile Ser Asn Asp Arg Arg 615 620 Arg Gly Ala Ile Ala Leu Gly Val Leu Gln His Thr Cys Ser Ser Ala 630 635 Ile His Asn Arg Tyr Thr Arg Val Gly Ser Thr Gln Val Asp Thr Asn 645 650 Asn Phe Thr His Leu Asn Val Ser Thr Lys Asn Ser Val Asn Met Trp 665 Leu Cys Thr Cys Asn Lys Gly Arg Thr Cys Phe Phe Asn Cys Pro Asp 680 685 Leu Ile Phe Phe Arg Ser Thr His Cys Gly Cys Leu Gln Asp Gly Val 695 700 Thr Thr Ala Ser Ile Lys Gly Gly Arg Ile Lys Asn Phe Leu Ile Ser 710 715 Pro Pro Met Arg Ser 725

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<212> PRT
<213> Enterobacter cloacae
<400> 6184
Ser Gly Arg Tyr Arg Asp Tyr Arg Ala Val Leu His Gln Arg Ser Val
Arg Ser Val Ala Glu Arg Gly Gly Arg Gly Tyr Cys Gly Ala Gly Val
                                25
Ala Glu Arg Leu Gln Arg Pro Thr His Gly Asp Leu Tyr Ser Gly Gly
Asp Gly Ala Val Asp Gly Gly Ala Glu Val Trp Arg Ala Cys His Ala
                        55
Gly Gly Arg His Arg Trp Leu Leu Tyr Ser Ala Glu Gly Thr Gly Arg
                    70
                                         75
Gln Ile Ala Cys Gln Thr Ala Gly Ala Cys Ala Ser Ser Val Gly Gly
                                     90
                8.5
Phe Tyr Asp Pro Ala Ala Val Cys Val Cys Gln Arg Gly Cys Phe Pro
                                105
            100
                                                     110
Trp Pro Gly Val Thr Leu Asp Gly Leu Thr Ser Val Leu Pro Leu Gly
                            120
Ile Ile Ala Gly Leu Phe Ile Gly Lys Pro Leu Gly Ile Ser Leu Phe
                        135
                                             140
Cys Trp Leu Ala Leu Lys Leu Lys Leu Ala Ser Leu Pro Asn Gly Thr
                    150
                                         155
Thr Phe Ser Gln Ile Met Ala Val Gly Val Leu Cys Gly Ile Gly Phe
                                     170
                165
Thr Met Ser Ile Phe Ile Ser Thr Leu Ala Phe Gly Ala Ser Ala Pro
            180
                                 185
Glu Leu Ile Val Trp Ala Lys Leu Gly Ile Leu Ile Gly Ser Phe Leu
                            200
                                                 205
Ala Ala Val Met Gly Tyr Thr Leu Leu Lys Val Lys Leu Ser Gly Gln
                        215
                                             220
Ala Val Gln Thr
225
<210> 6185
<211> 638
<212> PRT
<213> Enterobacter cloacae
<400> 6185
Met Gly Lys Ile Ile Gly Ile Asp Leu Gly Thr Thr Asn Ser Cys Val
                                     10
Ala Ile Met Asp Gly Thr Thr Ala Arg Val Leu Glu Asn Ala Glu Gly
            20
                                 25
Asp Arg Thr Thr Pro Ser Ile Ile Ala Tyr Thr Gln Asp Gly Glu Thr
                            40
                                                 4.5
Leu Val Gly Gln Pro Ala Lys Arg Gln Ala Val Thr Asn Pro Gln Asn
                        55
Thr Leu Phe Ala Ile Lys Arg Leu Ile Gly Arg Arg Phe Gln Asp Glu
                    70
                                         75
Glu Val Gln Arg Asp Val Ser Ile Met Pro Tyr Lys Ile Ile Ala Ala
                85
                                     90
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Pro Gln Ile Ser Ala Glu Val Leu Lys Lys Met Lys Lys Thr Ala Glu 120 Asp Tyr Leu Gly Glu Pro Val Thr Glu Ala Val Ile Thr Val Pro Ala 135 Tyr Phe Asn Asp Ala Gln Arg Gln Ala Thr Lys Asp Ala Gly Arg Ile

Asp Asn Gly Asp Ala Trp Leu Asp Val Lys Gly Thr Lys Thr Ala Pro 105

Ala Gly Leu Glu Val Lys Arg Ile Ile Asn Glu Pro Thr Ala Ala Ala 170 Leu Ala Tyr Gly Leu Asp Lys Glu Val Gly Asn Arg Thr Ile Ala Val 185 Tyr Asp Leu Gly Gly Gly Thr Phe Asp Ile Ser Ile Ile Glu Ile Asp 200 Asp Val Asp Gly Glu Lys Thr Phe Glu Val Leu Ala Thr Asn Gly Asp 215 220 Thr His Leu Gly Gly Glu Asp Phe Asp Thr Arg Leu Ile Asn Tyr Leu 230 235 Val Asp Glu Phe Lys Lys Asp Gln Gly Ile Asp Leu Arg Asn Asp Pro 250 245 Leu Ala Met Gln Arg Leu Lys Glu Ala Ala Glu Lys Ala Lys Ile Glu 270 260 265 Leu Ser Ser Ala Gln Gln Thr Asp Val Asn Leu Pro Tyr Ile Thr Ala 280 Asp Ala Thr Gly Pro Lys His Met Asn Ile Lys Val Thr Arg Ala Lys 295 300 Leu Glu Ser Leu Val Glu Asp Leu Val Asn Arg Ser Ile Glu Pro Leu 310 315 Lys Val Ala Leu Gln Asp Ala Gly Leu Ser Val Ser Asp Ile Gln Asp 325 330 Val Ile Leu Val Gly Gly Gln Thr Arg Met Pro Met Val Gln Lys Lys 340 345 Val Ala Glu Phe Phe Gly Lys Glu Pro Arg Lys Asp Val Asn Pro Asp 360 Glu Ala Val Ala Ile Gly Ala Ala Val Gln Gly Gly Val Leu Thr Gly 375 380 Glu Val Lys Asp Val Leu Leu Leu Asp Val Thr Pro Leu Ser Leu Gly 390 395 Ile Glu Thr Met Gly Gly Val Met Thr Ala Leu Ile Asn Lys Asn Thr 405 410 Thr Ile Pro Thr Lys His Ser Gln Val Phe Ser Thr Ala Glu Asp Asn 425 Gln Ser Ala Val Thr Ile His Val Ile Gln Gly Glu Arg Lys Arg Ala 440 Ala Asp Asn Lys Ser Leu Gly Gln Phe Asn Leu Asp Gly Ile Asn Pro 455 Ala Pro Arg Gly Met Pro Gln Ile Glu Val Thr Phe Asp Ile Asp Ala 470 475 Asp Gly Ile Leu His Val Ser Ala Lys Asp Lys Asn Ser Gly Lys Glu 485 490 Gln Lys Ile Thr Ile Lys Ala Ser Ser Gly Leu Asn Glu Ala Glu Ile 505 Glu Lys Met Val Arg Asp Ala Glu Ala Asn Ala Glu Ser Asp Arg Lys 515 520 525 Phe Glu Glu Leu Val Gln Thr Arg Asn Gln Gly Asp His Leu Leu His 535 540 Ser Thr Arg Lys Gln Val Glu Glu Ala Gly Asp Lys Leu Pro Ala Glu 550 555 Asp Lys Thr Ala Ile Glu Thr Ala Leu Ser Ala Leu Glu Thr Ser Leu 570 565 Lys Gly Glu Asp Lys Ala Asp Ile Glu Ala Lys Met Gln Glu Leu Ala 580 585 590 Gln Val Ser Gln Lys Leu Met Glu Ile Ala Gln Gln Gln His Ala Gln 600 605 Gln Gln Ala Gly Ala Asp Ala Ser Ala Asn Asn Ala Lys Asp Asp Asp 615 Val Val Asp Ala Glu Phe Glu Glu Val Lys Asp Lys Lys 630

<210> 6186

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<211> 337
<212> PRT
<213> Enterobacter cloacae
<400> 6186
Ser Val Phe Thr Asp Leu Phe Ala Leu Ile Leu Trp Phe Tyr Arg Gly
                                    10
Ile Val Val Lys Glu Ser Leu Asn Val Lys Leu Leu His Arg Phe Phe
           20
                                25
Ser Ser Glu Ala Ser Gly Gly Val Ile Leu Ile Ile Ala Ala Ala Ala
                            40
Ala Met Leu Leu Ala Asn Met Gly Met Thr Arg Asp Leu Tyr His Ala
Phe Leu Glu Thr Pro Val Glu Leu Lys Val Gly Ala Leu Glu Ile Asn
                    70
Lys Asn Met Leu Leu Trp Ile Asn Asp Ala Leu Met Ala Val Phe Phe
                                    90
Leu Leu Val Gly Leu Glu Val Lys Arg Glu Leu Val Ser Gly Ser Leu
                                105
                                                    110
Ala Ser Arg Gln Arg Ala Ala Phe Pro Val Ile Ala Ala Ile Gly Gly
       115
                           120
Met Ile Val Pro Ala Leu Leu Phe Leu Ala Phe Ala Trp Gln Asp Pro
                        135
                                            140
Val Ala Arg Asp Gly Trp Ala Ile Pro Ala Ala Thr Asp Ile Ala Phe
                   150
                                        155
Ala Leu Gly Val Leu Ser Leu Leu Gly Ser Arg Val Pro Val Ala Leu
                                    170
               165
Lys Ile Phe Leu Met Ala Leu Ala Ile Ile Asp Asp Leu Gly Ala Ile
           180
                               185
                                                   190
Val Ile Ile Ala Leu Phe Tyr Thr Ser Asp Leu Ser Val Leu Ser Leu
                           200
       195
Ser Val Ala Ala Val Ala Ile Ala Val Leu Ala Leu Leu Asn Val Phe
                        215
                                            220
Asn Val Arg Arg Thr Gly Ile Tyr Ile Leu Val Gly Met Val Leu Trp
                   230
                                        235
Thr Ala Val Leu Lys Ser Gly Val His Ala Thr Leu Ala Gly Val Ile
               245
                                   250
Val Gly Phe Phe Ile Pro Leu Lys Glu Gln Asp Gly Lys Ser Pro Ala
                               265
                                                    270
Arg Gln Leu Glu His Val Leu His Pro Trp Val Gly Phe Met Ile Leu
                           280
                                                285
Pro Leu Phe Ala Phe Ala Asn Ala Gly Val Ser Pro Gly Pro Gly Leu
                       295
                                            300
Pro Trp Thr Asp Ser Pro Leu Cys Cys Arg Trp Val Ser Ser Pro Val
                   310
                                       315
Cys Leu Leu Val Ser Arg Trp Ala Ser Ala Cys Ser Ala Gly Trp Arg
                                    330
<210> 6187
<211> 329
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<212> PRT
<213> Enterobacter cloacae

<400> 6187

Ser Cys Pro Asp Arg Leu Ser Arg His Asn Arg Lys Pro Gly Glu Gly
1 5 10 15

Lys Pro Ser Pro Asp Lys Leu Ser Gly Ser Glu Asn Val Met Ser His
20 25 30

Leu Asn Tyr Asn His Leu Tyr Tyr Phe Trp His Val Tyr Lys Gln Gly 40 Ser Val Val Gly Ala Ala Glu Ala Leu Tyr Leu Thr Pro Gln Thr Ile 55 Thr Gly Gln Ile Lys Ala Leu Glu Glu Arg Leu Gln Gly Lys Leu Phe 75 Lys Arg Lys Gly Arg Gly Ile Glu Pro Ser Glu Leu Gly Glu Leu Val 90 Phe Arg Tyr Ala Asp Lys Met Phe Thr Leu Ser Gln Glu Met Leu Asp 100 105 Ile Val Asn Tyr Arg Lys Glu Leu Asn Leu Leu Phe Asp Val Gly Val 120 Ala Asp Ala Leu Ser Lys Arg Leu Val Ser Gly Val Leu Asp Ala Ala 135 Val Val Glu Asp Glu Gln Ile His Leu Arg Cys Phe Glu Ser Thr His 150 155 Glu Met Leu Leu Glu Gln Leu Ser Gln His Lys Leu Asp Met Ile Ile 165 170 Ser Asp Cys Pro Ile Asp Ser Thr Gln Glu Gly Leu Phe Ser Val 185 190 180 Lys Ile Gly Glu Cys Gly Val Ser Phe Trp Cys Ile Asn Pro Pro Pro 200 195 Glu Lys Pro Phe Pro Ala Cys Leu Glu Glu Arg Arg Leu Leu Val Pro 215 220 Gly Arg Arg Ser Met Leu Gly Arg Lys Leu Leu Asn Trp Phe Asn Ser 230 235 Gln Gly Leu Asn Val Glu Ile Leu Gly Glu Phe Asp Asp Ala Ala Leu 245 250 Met Lys Ala Phe Gly Glu Ala His Asn Ala Ile Phe Val Ala Pro Thr 265 260 Leu Tyr Val His Asp Leu Tyr Ser Asp Asp Lys Ile Thr Glu Ile Gly 280 285 Arg Val Asp Asn Val Met Glu Glu Tyr His Ala Ile Phe Ala Glu Arg 295 300 Met Ile Gln His Pro Ala Val Gln Arg Ile Cys Asn Arg Asp Tyr Ser 310 315 Ala Leu Phe Thr Pro Pro Ala Ile 325

<210> 6188 <211> 372

<212> PRT

<213> Enterobacter cloacae

<400> 6188

Ala Phe Arg Lys Leu Arg Lys Ser Val Lys Ser Lys Lys Ala Tyr Lys Arg Leu Ala Met Lys Phe His Pro Asp Arg Asn Gln Gly Asp Lys Glu Ala Glu Ala Lys Phe Lys Glu Ile Lys Glu Ala Tyr Glu Val Leu Thr 40 Asp Ala Gln Lys Arg Ala Ala Tyr Asp Gln Tyr Gly His Ala Ala Phe 55 Glu Gln Gly Gly Met Gly Gly Gly Gly Phe Gly Gly Gly Phe Gly 70 Gly Gly Ala Asp Phe Ser Asp Ile Phe Gly Asp Val Phe Gly Asp Ile 85 90 Phe Gly Gly Arg Gly Arg Gln Arg Ala Ala Arg Gly Ala Asp Leu 105 Arg Tyr Asn Met Asp Leu Thr Leu Glu Glu Ala Val Arg Gly Val Thr 120 125

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Lys Glu Ile Arg Ile Pro Thr Leu Glu Glu Cys Asp Val Cys His Gly
                       135
                                            140
Ser Gly Ala Lys Ala Gly Thr Gln Pro Gln Thr Cys Pro Thr Cys His
                    150
                                        155
Gly Ser Gly Gln Val Gln Met Arg Gln Gly Phe Phe Ala Val Gln Gln
                                    170
Ala Cys Pro His Cys His Gly Arg Gly Thr Leu Ile Lys Asp Pro Cys
                                185
Thr Lys Cys His Gly His Gly Arg Val Glu Lys Thr Lys Thr Leu Ser
                            200
Val Lys Ile Pro Ala Gly Val Asp Thr Gly Asp Arg Ile Arg Leu Ala
                        215
                                            220
Gly Glu Gly Glu Ala Gly Glu His Gly Ala Pro Ala Gly Asp Leu Tyr
                    230
                                        235
Val Gln Val Gln Val Lys Gln His Ala Ile Phe Glu Arg Glu Gly Asn
                245
                                    250
                                                         255
Asn Leu Tyr Cys Glu Val Pro Ile Asn Phe Ala Met Ala Ala Leu Gly
            260
                                265
Gly Glu Ile Glu Val Pro Thr Leu Asp Gly Arg Val Asn Leu Lys Ile
                            280
Pro Gly Glu Thr Gln Thr Gly Lys Leu Phe Arg Met Arg Gly Lys Gly
    290
                        295
                                             300
Val Lys Ser Val Arg Gly Gly Ala Gln Gly Asp Leu Leu Cys Arg Val
                    310
                                         315
Val Val Glu Thr Pro Val Gly Leu Asn Asp Lys Gln Lys Gln Leu Leu
                325
                                    330
Lys Glu Leu Gln Glu Ser Phe Gly Gly Pro Thr Gly Glu Lys Asn Ser
                                345
Pro Arg Ser Lys Ser Phe Phe Asp Gly Val Lys Lys Phe Phe Asp Asp
        355
                            360
Leu Thr Arg
    370
<210> 6189
<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 6189
Arg Gly Ala Ser Gly Gly Ser Trp Ala Lys Val Leu Thr Thr Asp Gln
                                    10
Lys Arg Glu Ala Val Met Leu Met Cys Asp Ala Thr Gly Leu Ser Gln
                                25
Arg Arg Ala Cys Arg Leu Thr Ser Leu Ser Leu Ser Thr Cys Arg Tyr
                            40
Glu Ala His Arg Pro Ala Ala Asp Ala His Leu Ser Gly Arg Ile Thr
                        55
Glu Leu Ala Leu Glu Arg Arg Phe Gly Tyr Arg Arg Asn Leu Ala
                                        75
Asn Cys Cys Pro Val Lys Gly Phe Met Leu Ile Ile Ser Ala Gly Thr
                85
                                    90
Gly Phe Ile Thr Ser Val Ala Trp Ala
            100
<210> 6190
<211> 98
<212> PRT
<213> Enterobacter cloacae
<400> 6190
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Cys Leu His Lys Pro His Glu Asp Ile Pro Met Lys Lys Arg Phe Ser

```
10
Asp Glu Gln Ile Ile Ser Ile Leu Arg Glu Ala Glu Ala Gly Val Pro
                                25
Ala Arg Glu Leu Cys Arg Lys His Ala Ile Ser Asp Ala Thr Phe Tyr
                            40
Ile Trp Arg Lys Lys Tyr Gly Gly Met Glu Val Pro Glu Val Lys Arg
                        55
Leu Lys Ser Leu Glu Glu Glu Asn Ala Arg Leu Lys Lys Leu Leu Ala
                    70
                                        75
Glu Ala Met Leu Asp Lys Glu Ala Leu Gln Val Ala Leu Gly Arg Lys
Tyr
<210> 6191
<211> 187
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(7)
<400> 6191
Lys Gly Trp Gln Gln Asn Xaa Cys Arg Cys Ser Val Pro Ala Ala Pro
                                    10
Asn Leu Thr Trp Ser Met Asp Phe Val Met Asp Ala Leu Ser Thr Gly
            20
                                25
Arg Arg Ile Lys Cys Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys
                            40
Leu Thr Val Thr Val Ala Phe Gly Ile Ser Gly Val Gln Val Thr Arg
Ile Leu Asp Ser Ile Ala Leu Phe Arg Gly Tyr Pro Ala Thr Ile Arg
                    70
                                        75
Thr Asp Gln Gly Pro Glu Phe Thr Cys Arg Ala Leu Asp Gln Trp Ala
                                    90
Phe Glu His Gly Val Glu Leu Arg Leu Ile Gln Pro Gly Lys Pro Thr
                                105
Gln Asn Gly Phe Ile Glu Ser Phe Asn Gly Arg Phe Arg Asp Glu Cys
                            120
                                                125
Leu Asn Glu His Trp Phe Ser Asp Ile Val His Ala Arg Lys Ile Ile
                        135
                                            140
Asn Asp Trp Arg Gln Asp Tyr Asn Glu Cys Arg Pro His Ser Thr Leu
                    150
                                        155
Asn Tyr Gln Thr Pro Ser Glu Phe Ala Ala Gly Trp Arg Lys Gly His
                165
                                    170
Ser Glu Asn Glu Asp Ser Asp Val Thr Asn
<210> 6192
<211> 806
<212> PRT
<213> Enterobacter cloacae
<400> 6192
Gly Thr Gly Asn Trp Leu Gln Asn Cys Asn Val Glu Thr Ser Lys Lys
                                   10
Thr Val Thr Thr His Tyr Pro Asp Tyr Lys Glu Phe Tyr Cys Asn Ser
                               25
Pro Lys Gln Asp Asn Phe Ser Ser Cys Thr Ile Thr Arg Asp Phe Ser
```

Val Pro Val Tyr Ile Ser Gly Gly Asn Gly Asp Met Ser Met Cys Gly Asp Asn Cys Val Arg Ile Trp Phe Gly Arg Arg Asp Asp Asn Tyr Trp Ser Asp Gly Val Tyr Asp Asn Glu Leu Thr Leu Lys Phe His Pro Asp Ala Lys Leu Ala Ser Ala Lys Ile Val Asn Ala Glu Trp Asp Asp His 105 Met Arg Val Thr Leu Asp Gly Thr Gln Ile Phe Ala His Ile Asp Gly 120 Ala Tyr Arg Glu Ser Asp Tyr Pro Ala Pro Lys Gly Ser Trp Glu Leu 135 140 Lys Lys Ser Trp Lys Leu Asp Lys Val Tyr Asp Val Thr Asp Lys Val 150 155 Arg Lys Ser Val Tyr Glu Glu Pro Asp Arg Glu Val Thr Met Ala Ser 165 170 Arg Val Trp Val Gly Gly Lys Gly Glu Gly Tyr Phe Glu Val Glu Leu 185 Thr Phe Glu Asn Met Lys Leu Glu Asp Lys His Val Gln Glu Pro Ala 200 Gly Cys Tyr Asp Ala Val Gln Ala Pro Asn Thr Phe Cys Arg Phe Asp 215 Arg Phe Lys Asp Met Asp Val Gly Thr Lys Arg Leu Pro Glu Ser Val 230 235 Leu Ser Leu Ala Lys Pro Leu Tyr Glu Gly Asp Lys Gly Phe Leu Thr 250 Trp Lys Thr Asn Leu Glu Gly Tyr Phe Cys Asp Pro Leu Ala Lys Asp Lys Ile Cys Ser Tyr Asp Ala Ser Gly Lys Ile Met Lys Asp Ala Asn 280 Gly Lys Asp Leu Cys Tyr Asn Tyr Glu Glu Ile Lys Ser Met Pro Asp 295 Ala Cys Ser Ala Tyr Lys Asn Asp Ala Ala Cys Val Leu Asp Lys Gln 310 315 Thr Cys Ala Glu Gly Trp Phe Asp Glu Gly Thr Asn Ser Cys Tyr Met 325 330 Tyr Glu Gln Lys Tyr Thr Cys Asp Arg Gly Lys Asp Val Val Arg Glu 345 Val Glu Ser Ser Thr Asn Ala Cys Val Gly Met Ile Pro Cys Ser Gly 360 Gly Thr Cys Glu Thr Gly Pro Lys Glu Glu Asn Asn Asp Phe Gly Lys 375 380 Val Ala Ala Tyr Ser Asn Met Val Gln Tyr Met Gln Gly Glu Ala Lys 390 395 Cys Glu Asp Pro Asn Asp Ala Asn Ser Cys Ser Val Phe Glu Gly Lys 405 410 Pro Glu Trp Cys Gly Arg Ser Val Gly Phe Val Asn Gly Leu Ala Lys 425 420 Thr Asp Cys Cys Glu Ala Pro Gln Gly Thr Ala Gly Ala Leu Glu Gly 440 435 Ile Met Leu Ala Gly Ser Met Ile Arg Asn Thr Asn Trp Thr Arg Val 455 460 Asn Ala Gln Leu Ile Lys Trp Thr Gly Gly Asp Thr Gly Thr Trp Ala 470 475 Ser Met Ser Asn Ala Val Gly Glu Trp Thr Ala Ser Ala Gly Lys Thr 490 Val Gly Gln Met Trp Asn Asn Val Thr Ser Ser Leu Thr Ser Val Tyr 505 Glu Asn Val Ala Gly Asn Leu Ser Arg Ala Val Gly Ser Ser Ala Thr 520 Ser Gly Gly Ala Gly Gly Ala Gly Gln Leu Ala Gln Glu Thr Met Ser

```
535
Ser Phe Gly Ile Gly Gln Leu Lys Gln Met Ala Met Lys Lys Ala Tyr
                    550
                                        555
Glu Leu Leu Pro Asp Thr Val Arg Asp Phe Val Phe Lys Asn Val Ala
                565
                                    570
Thr Thr Gly Glu Val Val Phe Ser Ala Ala Val Gln Asn Phe Met
                                585
Leu Ala Leu Asn Val Ile Gly Trp Ile Tyr Thr Ala Tyr Gln Val Thr
                            600
Lys Met Leu Glu Met Leu Val Ala Cys Asp Gln Lys Glu Met Glu
                        615
                                            620
Ala Ser Ile His Lys Asn Gln Lys Ser Cys Phe Thr Leu Asp Thr Glu
                    630
                                        635
Arg Cys Val Lys Tyr Leu Asn Val Gly Phe Thr Lys Lys Cys Val Lys
                                    650
Lys Ala Thr Asp Met Cys Cys Tyr Asn Ser Met Leu Ser Arg Val Ile
                                665
Met Gln Gln Ala Tyr Pro Gln Leu Gly Ile Asp Pro Val Ala Ser Asn
                            680
Cys Val Gly Leu Ser Ile Lys Gln Ile Gln Gln Leu Asp Phe Asp Lys
                        695
Ile Asp Leu Thr Glu Trp Ile Asn Asp Ala Val Gln Val Gly Glu Val
                    710
                                        715
Pro Asp Gln Tyr Ser Lys Phe Ser Glu Glu Ser Ile Val Glu Asn Leu
                725
                                    730
Pro Phe Gln Asn Glu Asn Tyr Gln Leu Pro Ser Glu Arg Thr Lys Glu
                                745
Ala Met Gly Glu Glu Asn Met Ile Lys Ala Arg Gln Glu Asn Ala
        755
                            760
                                                765
Gln Ala Ile Lys Glu Glu Asn Val Asp Cys Ser Tyr Leu Pro Arg Pro
                        775
                                            780
Ala Ile Cys Glu Val Gly Ser Thr Thr Leu Asp Pro Val Thr Gly Lys
                                        795
Gln Leu Pro Lys Tyr
<210> 6193
<211> 560
<212> PRT
<213> Enterobacter cloacae
<400> 6193
Leu Leu Lys Arg Ser Asn Glu Val Glu Met Gly Lys Pro Thr Glu Glu
                                    10
Gln Arg Pro Val Ile Glu Asn Ala Ser Ala Asn Asn Met Val Ile Ala
                                25
Ala Pro Gly Ser Gly Lys Ser Phe Thr Met Ile Glu Ala Val Ile Ser
                            40
Ile Leu Lys Lys Tyr Pro Tyr Ala Arg Ile Gly Met Val Thr Phe Thr
                        55
Arg Ala Ala Thr Asn Ala Leu Ala Ala Lys Leu Gln Lys Arg Leu Ser
Lys Lys Asp Leu Asp Arg Val Leu Val Asp Thr Phe His Gly Leu Val
Lys Lys Gln Leu Asp Met Ile Arg Trp Pro Gly Lys Met Leu Ile Gly
                                105
Pro Ala Gln Arg Ser Val Ile His Arg Ala Leu Lys Glu Ser Gly Val
                            120
Thr Met Lys Phe Ala Glu Ala Glu Phe Val Ile Asp Ala Ile Gly Arg
                       135
                                            140
```

Glu Met Asp Thr Asp Val Ile Ser Val Arg His Asn Arg Gln Gln Ile

```
145
                   150
                                       155
His Leu Phe Asn Thr Tyr Gln Ala Leu Cys Gln Lys Asp His Val Ala
               165
                                   170
Asp Leu Asn Ala Leu Ser Lys Phe Val Val Gly Gln Met His Ser Gly
           180
                                185
Lys Met Arg Thr Leu Asp Leu Thr His Leu Ile Val Asp Glu Val Gln
                            200
Asp Thr Asp Ser Ile Gln Phe Ser Trp Ile Ala Leu His Thr Arg Ala
                       215
                                        . 220
Gly Val Tyr Thr Ser Ile Val Gly Asp Asp Asp Gln Ala Ile Tyr Ser
                   230
                                       235
Phe Arg Ser Ser Gly Gly Val Lys Ile Phe Gln Gln Phe Glu Lys His
               245
                                    250
                                        .
Phe Arg Pro Asn Ile Phe Tyr Leu Asn Thr Cys Phe Arg Cys Glu Pro
                               265
                                                    270
Glu Ile Leu Glu Val Ala Gly Ala Leu Ile Gly Lys Asn Val Tyr Arg
                           280
       275
Tyr Ala Lys Glu Leu Arg Ser Ala Lys Lys Gly Gly Lys Val Thr
                       295
                                            300
Phe Arg Ser Tyr Val Asp Met Glu Glu Gln Ile Gln Gly Ile Leu Ser
                   310
                                       315
Leu Ile Asn Gln Asp Pro His Gly Trp Ala Ile Leu Ser Arg Asn Asn
               325
                                   330
Ala His Leu Asp Glu Leu Glu Ser Leu Ile Glu Gln Pro Val Ile Arg
           340
                               345
Tyr Gly Gly Lys Ser Phe Trp Asp Glu Lys Glu Thr Ser Asp Val Leu
                           360
Ser Leu Met Ala Phe Phe Arg Gln Ser Asn Asp Pro Arg Leu Met Lys
                       375
                                           380
Arg Val Leu Ala Leu Phe Gly Glu Gln Glu Ser Val Leu Asp Glu Val
                   390
                                       395
Ala Leu Ser Met Arg Gly Arg Lys Val Thr Phe Gly Asp Leu Ala Ile
               405
                                    410
Pro Glu Asp Ser Ser Leu Glu Thr Lys Thr Leu His Ser Asn Phe Val
                               425
Arg Phe Thr Gln Glu Ser Ser Asp Lys Val Glu Ile Ala Lys Arg Phe
                            440
Ala Asn Leu Thr Lys Trp Met Glu Ser Ser Ser Ile Lys Met Arg Ser
                       455
Asn Lys Gly Thr Ala Thr Leu Thr Lys Ile Ala Leu Asp Thr Cys Lys
                   470
                                       475
Gln Trp Ala Glu Lys Thr Gly Trp Met Asn Met Ile Asn Arg Ala Ala
               485
                                    490
Ala Met Ser Leu Gly Pro Arg Lys Lys Asp Glu Glu Tyr Ser Pro Glu
                               505
Lys Val Val Leu Ser Thr Leu His Gly Ser Lys Gly Leu Glu Trp Asn
                           520
                                               525
Lys Val Ile Ile Met Ser Cys Asn Ala Asp Gln Ile Pro Ser Lys Arg
                       535
                                           540
Ser Val Gly Glu Glu Ala Ile Lys Lys Glu Arg Arg Leu Leu Tyr Val
                   550
                                       555
```

#### <400> 6194

Leu Lys Val Tyr Leu Met Lys Lys Thr Thr Ser Arg Lys Ala Ala Arg 1 5 10 15 Arg Pro Ala Lys His Thr Asp Leu Tyr Arg Gln Ile Thr Asp Arg Ile

<sup>&</sup>lt;210> 6194

<sup>&</sup>lt;211> 107

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

2447 25 Val Val Ala Leu Glu Asn Gly Val Ala Pro Trp Arg Lys Pro Trp Arg 40 4.5 Ala Ala Ala Gly Ser Gly Leu Ala Gly Leu Pro Leu Asn Ala Thr Thr 55 Gly Arg His Tyr Ser Gly Val Asn Val Leu Leu Leu Trp Met Ser Ala 70 75 Glu Glu Gln Gly Phe Arg Asn Asn Arg Trp Leu Thr Tyr Arg Gln Ala 90 Gln Pro Gly Arg Arg Pro Gly Ala Lys Gly 100 <210> 6195 <211> 300 <212> PRT <213> Enterobacter cloacae <400> 6195 Met Ser Arg Phe Ser Lys Gln Leu Cys Lys Gln Leu Val Thr Leu Ala 10 Arg Gln Gly Arg Gly Ser Tyr Lys Thr Val Ala Asp Arg Ser Arg Ile 25 20 Ala Glu Arg Phe Ser Glu Arg Leu Ser Glu Leu Asn Ile Gln Ile Arg 40 Asp Val Lys His Ile Lys Thr Ser His Ile Glu Lys Tyr Ile Glu Ser 55 60 Arg Lys Ala Asp Asn Leu Ser Leu Arg Thr Leu Gln Asn Glu Met Ser 70 75 Ala Ile Arg Ser Val Leu Leu Ser Ala Gly Arg Asn Lys Leu Ala Asp 90 85 Pro Ser His Ile Asn Leu Ser Asn Gln Ala Leu Gly Ile Ser Gly Ala 100 105 Asn Arg Asp Gly Thr Lys Leu Pro Ile Thr Asp Glu Lys Leu Asn Ala 120 125 Val Val Ser Phe Ala Gln Arg Lys Asp Glu Gly Val Ala Leu Ala Val 140 135 Gln Leu Ser Arg Tyr Leu Gly Leu Arg Thr Gln Lys Thr Val Gln Ser 150 155 Ala Lys Ser Leu Lys Thr Trp Arg Gln Ala Leu Ile Asn Asn His Glu 165 170 Arg Val Arg Val Val Phe Gly Thr Lys Gly Gly Arg Pro Arg Glu Thr 185 Thr Val Phe Asn Arg Glu Lys Val Leu Ser Ile Leu Asp Lys Ala Ile 200 His Tyr Val Ser Glu His Asn Gly Lys Leu Ile Asp Asn Pro Ser Leu 215 His Ser Ala Ile Asp Arg Tyr Arg Asn Ile Val Arg Glu Ala Gly Met 230 235 Asn Gly Lys Asn Ala Pro His Ser Leu Arg Tyr Ala Tyr Ser Arg Asp 245 250 Ala Val Asn His His Ile Lys Asn Gly Met Ser Arg Asp Glu Ala Glu 265 260 Ala Leu Val Ser Met Asp Leu Gly His Gly Asp Gly Arg Gly Arg Tyr

280

Ile Lys Gln Val Tyr Phe Arg Gly Glu Ala Glu

295

<sup>&</sup>lt;210> 6196

<sup>&</sup>lt;211> 243

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

```
<400> 6196
Leu Thr Gly Arg Arg Ser Gln Ala Gly Gln Val Arg Lys Gly Glu
Lys Ala Thr Leu Ala Val Val Tyr Lys Asp Trp Thr Lys Gln Ala Glu
Asp Arg Glu Gly Asn Arg Leu Tyr Asp Ser Asp Gly Lys Pro Leu Thr
Glu Thr Val Pro Met Leu Lys Pro Leu Gln Leu Phe Asn Ala Glu Gln
                        55
Cys Glu Gly Leu Pro Ala Glu Val Ala Ala Ser Pro Glu Gln Pro Pro
                    70
Ala Val Asp Glu Asp Gly Ile Leu Ser Pro Asp Val Met Asp Arg Val
                                    90
Leu Arg Met Val Asn Ala Thr Gly Val Lys His Arg Met Leu Pro Gln
                                105
Asn Arg Ala Tyr Tyr Arg Pro Leu Thr Asp Glu Ile Val Met Pro Val
                            120
                                                 125
Ala Gly Gln Phe Phe Thr Glu Ala Asp Trp Trp Ser Thr Leu Leu His
                        135
                                            140
Glu Leu Val His Ser Thr Gly His Thr Lys Arg Leu Asn Arg Glu Gly
                    150
                                        155
Ile Thr Ser Ser Ser Arg Gln Phe Gly Asp Pro Val Tyr Ala Phe Glu
                                    170
                165
Glu Leu Ile Ala Glu Met Gly Ser Ala Phe Leu Cys Ala Gln Leu Gly
                                185
            180
Val Ser Gly Glu Val Gln His Asp Ser Tyr Val Asp His Trp Leu Lys
                            200
        1.95
                                                205
Val Leu Lys Ser Asp Lys Lys Ala Leu Phe Arg Ala Cys Arg His Ala
                        215
                                            220
Arg Glu Ala Ser Glu Tyr Leu Leu Ala Leu Pro Gly Arg Gln Thr Val
                    230
                                        235
225
Ala Ala
<210> 6197
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 6197
Glu Tyr Phe Ala Asp Arg Gln Leu Arg Gly Glu Asp Ile Gln Glu Leu
                                    10
Glu His Gln Ser Gly Lys Leu Ala Asp Trp Val Arg Asp Leu Leu Cys
                                25
Arg Lys Ser Asn Phe Val Val Thr Cys Ala Leu Ala Asn Lys Leu Ala
                            40
Arg Ile Ala Trp Ala Leu Thr Ala Arg Gln Gln Thr Tyr Val Ala
<210> 6198
<211> 160
<212> PRT
<213> Enterobacter cloacae
<400> 6198
Arg Asn Asp Ile Asp Phe Gly Leu Glu Leu Ala Thr Thr Ser Ser Thr
                                    10
Arg Ser Gly His Gly Leu Pro Leu Val Ala Leu Gly Ala Gly Lys Arg
                                25
```

Leu Thr Met Gln Asn Arg Gly Glu Leu Phe His Lys Val Val Val Val

```
40
Gln Phe Gln Phe Val His Ala Leu Val Gln Thr Val Val Arg His Tyr
                        55
Arg Arg Asn Cys Gly Glu Gln Thr Asp Cys Gly Arg Asp Gln Cys Phe
                                        75
Cys Asp Thr Arg Cys Asn His Leu Gln Arg Cys Leu Leu His Arg Pro
                85
                                    90
Gln Gly Asp Lys Gly Val His Asp Pro Pro His Arg Thr Lys Gln Ala
                                105
            100
                                                    110
Asp Ile Arg Ala Asp Gly Ala Asn Gly Ser Glu Glu Arg Asn Met Arg
        115
                            120
                                                125
Phe Lys Ile Phe Gln Phe Ala Val His Gly Asp Ala His Arg Thr Arg
                        135
                                            140
Arg Pro Phe Tyr His Gly Phe Arg Arg Met Ala Val Ser Ala Met
                    150
                                                             160
                                        155
<210> 6199
<211> 150
<212> PRT
<213> Enterobacter cloacae
<400> 6199
Arg Ser Leu Lys Ala Pro Thr Phe Leu Val Leu Pro Gly Cys Lys Val
Asn Thr Thr Leu Phe Arg Trp Pro Val Arg Val Tyr Tyr Glu Asp Thr
Asp Ala Gly Gly Val Val Tyr His Ala Ser Tyr Val Ala Phe Tyr Glu
Arg Ala Arg Thr Glu Met Leu Arg His His His Phe Ser Gln Gln Val
                        55
Leu Leu Ala Glu Arg Val Ala Phe Val Val Arg Lys Met Thr Leu Glu
                                        75
Tyr Phe Ala Pro Ala Arg Leu Asp Asp Met Leu Glu Val Gln Thr Glu
                                    90
Ile Thr Ser Met Arg Gly Thr Ser Leu Val Phe Thr Gln Arg Ile Val
                                105
Asn Ala Glu Asn Thr Val Leu Asn Ser Ala Glu Val Leu Ile Val Cys
                            120
Val Asp Pro Thr Ile Met Lys Pro Arg Ala Leu Pro Lys Ser Ile Val
                        135
Ala Glu Phe Lys Gln
<210> 6200
<211> 376
<212> PRT
<213> Enterobacter cloacae
<400> 6200
Leu Ser Leu Phe Asp His Leu Arg Ser Phe Trp Glu Pro Ile Val Ser
                                    10
Lys Ala Thr Glu Gln Asn Asp Lys Leu Lys Arg Ala Ile Ile Val Ser
                                25
Ala Val Leu His Val Phe Leu Phe Ala Ala Leu Ile Trp Ser Ser Phe
                            40
Asp Glu His Leu Asp Ala Ser Gly Gly Asp Gly Gly Ser Ser Ile Asp
Ala Val Met Val Asp Pro Gly Ala Val Val Gln Asn Tyr Asn Arg Gln
                   70
                                        75
Gln Gln Gln Ala Ser Ala Lys Arg Ala Glu Glu Arg Glu Lys
```

```
Gln Ala Gln Gln Ala Glu Glu Leu Arg Glu Lys Gln Ala Ala Glu
                               105
Gln Glu Arg Leu Lys Gln Leu Glu Lys Glu Arg Leu Gln Ala Gln Glu
                           120
                                               125
Ala Ala Lys Glu Gln Ala Glu Gln Gln Lys Gln Ala Glu Ala Ala Ala
                       135
                                           140
Lys Lys Ala Gln Glu Gln Gln Lys Gln Ala Glu Glu Ala Ala Lys
                   150
                                       155
Ala Ala Ala Asp Ala Lys Ala Gln Ala Asp Ala Gln Ala Lys Leu Ala
               165
                                   170
Ala Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala Gln Lys Lys Ala Glu
                               185
Ala Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala Lys Lys Ala Glu
                           200
Ala Glu Ala Ala Lys Lys Ala Ala Ala Asp Ala Gln Lys Lys Ala Glu
                       215
Ala Glu Ala Ala Lys Lys Ala Ala Gln Glu Ala Glu Lys Lys Ala Ala
                   230
                                       235
Ala Asp Ala Ala Lys Lys Ala Ala Ala Glu Lys Ala Ala Glu
               245
                                   250
Lys Ala Ala Ala Glu Lys Ala Ala Glu Lys Lys Ala Ala Ala
                               265
Glu Lys Ala Ala Ala Asp Lys Lys Ala Ala Glu Lys Ala Ala Ala
       275
                           280
Lys Lys Ala Ala Ala Glu Lys Ala Ala Ala Gly Val Asp Asp
                       295
                                           300
Leu Leu Gly Asp Leu Ser Ser Gly Lys Asn Ala Pro Lys Thr Gly Gly
                                      315
                   310
Gly Ala Lys Gly Ser Asn Ala Ala Pro Ala Gly Ser Gly Asn Thr Lys
               325
                                   330
Asn Asn Gly Ala Ser Gly Ala Glu Ile Asn Asp Tyr Lys Asn Gln Ile
                              345
           340
Ala Ala Ile Ala Ser Arg Leu Asn Asp Lys Ser Val Leu His Arg
                           360
Arg Gly Trp Lys Glu Glu Pro Ser
    370
```

<210> 6201

<211> 505

<212> PRT

<213> Enterobacter cloacae

# <400> 6201

Arg Phe Leu Phe Val Pro Leu Thr Leu Gly Met Ala Phe Leu Leu Ala 10 Ile Met Glu Thr Val Tyr Val Leu Ser Gly Lys Gln Ile Tyr Lys Asp Met Thr Lys Phe Trp Gly Lys Leu Phe Gly Ile Asn Phe Ala Leu Gly Val Ala Thr Gly Leu Thr Met Glu Phe Gln Phe Gly Thr Asn Trp Ser Tyr Tyr Ser His Tyr Val Gly Asp Ile Phe Gly Ala Pro Leu Ala Ile 70 75 Glu Gly Leu Met Ala Phe Phe Leu Glu Ser Thr Phe Val Gly Leu Phe 85 90 Phe Phe Gly Trp Asp Arg Leu Gly Lys Val Gln His Met Ala Val Thr 100 105 110 Trp Leu Val Ala Leu Gly Ser Asn Leu Ser Ala Leu Trp Ile Leu Val 120 125 Ala Asn Gly Trp Met Gln Asn Pro Ile Ala Ser Asp Phe Asn Phe Glu 135 140

```
Thr Met Arg Met Glu Met Val Ser Phe Ala Glu Leu Val Leu Asn Pro
                    150
                                        155
Val Ala Gln Val Lys Phe Val His Thr Val Ala Ser Gly Tyr Val Cys
                165
                                    170
Gly Ala Met Phe Val Leu Gly Ile Ser Ser Tyr Tyr Met Leu Arg Gly
                                185
Arg Asp Phe Ala Phe Ala Lys Arg Ser Phe Ala Ile Ala Ala Ser Phe
                            200
Gly Met Ala Ala Ile Leu Ser Val Ile Val Leu Gly Asp Glu Ser Gly
                        215
                                            220
Tyr Glu Met Gly Asp Val Gln Lys Thr Lys Leu Ala Ala Ile Glu Ala
                    230
                                        235
Glu Trp Glu Thr Gln Pro Ala Pro Ala Ala Phe Thr Leu Phe Gly Val
               245
                                    250
Pro Asp Gln Glu Ala Gln Glu Asn Arg Phe Ala Ile Gln Ile Pro Tyr
                               265
           260
Ala Leu Gly Ile Ile Ala Thr Arg Ser Val Asp Lys Gln Val Thr Gly
      275
                           280
                                                285
Leu Lys Asp Leu Met Val Gln His Glu Glu Arg Ile Arg Asn Gly Met
                                            300
                       295
Lys Ala Tyr Ser Leu Leu Glu Gln Leu Arg Ala Gly Ser Thr Asp Gln
                   310
                                       315
Ala Val Arg Asp Gln Phe Asn Asp Val Lys Lys Asp Leu Gly Tyr Gly
               325
                                   330
Leu Leu Leu Lys Arg Tyr Thr Pro Asn Val Ser Asp Ala Thr Glu Ala
           340
                               345
Gln Ile Gln Met Ala Thr Lys Asp Ser Ile Pro Arg Val Ala Pro Leu
                            360
                                                365
Tyr Phe Ala Phe Arg Ile Met Val Gly Cys Gly Ile Ile Met Leu Leu
                        375
                                            380
Ile Ile Ala Ala Ser Phe Trp Ser Val Ile Arg Asn Arg Ile Gly Glu
                   390
                                       395
Lys Lys Trp Leu Leu Arg Thr Ala Leu Tyr Gly Ile Pro Leu Pro Trp
                                    410
Ile Ala Ile Glu Ser Gly Trp Phe Val Ala Glu Tyr Gly Arg Gln Pro
                                425
Trp Ala Ile Gly Glu Val Leu Pro Thr Ala Val Ala Asn Ser Ser Leu
                           440
Thr Ala Gly Asp Leu Ile Phe Ser Met Leu Leu Ile Cys Gly Leu Tyr
                       455
                                            460
Thr Leu Phe Leu Val Ala Glu Leu Phe Leu Met Phe Lys Phe Ala Arg
                   470
                                       475
Leu Gly Pro Ser Ser Leu Lys Thr Gly Arg Tyr His Tyr Glu Gln Ser
                                    490
               485
Val Ala Thr Thr Gln Pro Ala Arg
                                505
            500
```

<210> 6202

<211> 385

<212> PRT

<213> Enterobacter cloacae

<400> 6202

Asp Arg Ser His Gln Met Ile Asp Tyr Glu Val Leu Arg Phe Ile Trp 1 5 10 15

Trp Leu Leu Ile Gly Val Leu Leu Ile Gly Phe Ala Val Thr Asp Gly 20 25 30

Phe Asp Met Gly Val Gly Met Leu Thr Arg Phe Leu Gly Arg Asn Asp 35

Thr Glu Arg Arg Ile Met Ile Asn Ser Ile Ala Pro His Trp Asp Gly 50

```
Asn Gln Val Trp Leu Ile Thr Ala Gly Gly Ala Leu Phe Ala Ala Trp
                    70
Pro Met Val Tyr Ala Ala Ala Phe Ser Gly Phe Tyr Val Ala Met Ile
                                    90
Leu Val Leu Ala Ser Leu Phe Phe Arg Pro Val Gly Phe Asp Tyr Arg
                                105
Ser Lys İle Glu Asp Thr Arg Trp Arg Asn Met Trp Asp Trp Gly Ile
                            120
                                                125
Phe Ile Gly Ser Phe Val Pro Pro Leu Val Ile Gly Val Ala Phe Gly
                        135
                                            140
Asn Leu Leu Gln Gly Val Pro Phe His Val Asp Glu Tyr Met Arg Leu
                    150
                                        155
Phe Tyr Thr Gly Asn Phe Phe Gln Leu Leu Asn Pro Phe Gly Leu Leu
                                    170
                165
Ala Gly Val Val Ser Val Ala Met Ile Ile Thr Gln Gly Ala Thr Tyr
            180
                                185
Leu Gln Met Arg Thr Val Gly Glu Leu His Leu Arg Ser Arg Ala Thr
                            200
Ala Gln Val Ala Ala Leu Val Thr Leu Val Cys Phe Ala Leu Ala Gly
                        215
                                            220
Val Trp Val Val Tyr Gly Ile Asp Gly Tyr Val Val Thr Ser Ala Ile
                    230
                                        235
Asn His Thr Ala Pro Ser Asn Pro Leu Thr Lys Glu Val Ala Arg Gln
                                    250
Ala Gly Ala Trp Leu Val Asn Phe Asn Asn Thr Pro Ala Leu Trp Ala
                                265
Ile Pro Ala Leu Gly Val Leu Leu Pro Leu Leu Thr Val Leu Thr Ser
                            280
Arg Leu Glu Lys Gly Ala Leu Ala Phe Val Phe Ser Ser Leu Thr Leu
                        295
Ala Cys Ile Ile Leu Thr Ala Gly Ile Ala Met Phe Pro Phe Val Met
                    310
                                        315
Pro Ser Ser Thr Met Met Asn Ala Ser Leu Thr Met Trp Asp Ala Thr
                325
                                    330
Ser Ser Gln Leu Thr Leu Asn Leu Met Thr Tyr Val Ala Cys Val Phe
                                345
Val Pro Ile Ile Leu Leu Tyr Thr Trp Cys Tyr Trp Lys Met Phe
                            360
                                                365
Gly Arg Ile Thr Lys Glu His Ile Glu Ser Asn Thr His Ser Met Tyr
                        375
```

385

<210> 6203

<211> 101

<212> PRT

<213> Enterobacter cloacae

<400> 6203

 Arg
 Lys
 Ala
 Leu
 Met
 Asn
 Ile
 Ile
 Ala
 Thr
 Leu
 Tyr
 Ala
 Val
 Met
 Asp
 15

 Lys
 Arg
 Pro
 Leu
 Arg
 Ala
 Leu
 Ser
 Leu
 Ile
 Met
 Ala
 Leu
 Leu
 Ala

 Gly
 Cys
 Ile
 Phe
 Trp
 Asp
 Pro
 Ser
 Arg
 Phe
 Ala
 Ala
 Lys
 Thr
 Ser
 Glu

 Leu
 Glu
 Ile
 Trp
 His
 Gly
 Phe
 Leu
 Ile
 Met
 Trp
 Ala
 Lys
 Ala
 Gly
 Ala
 Gly

 Val
 Ile
 His
 Gly
 Val
 Gly
 Phe
 Arg
 Pro
 Lys
 Ala
 Leu
 His
 Trp
 Ala
 Gly

 Val
 Ile
 His
 Gly
 Phe
 Arg
 Pro
 Lys
 Ala
 Leu
 His
 Trp
 Gly

 Val
 Ile
 His
 Gly
 Phe
 Arg
 Pr

2453 Phe Phe Phe 100 <210> 6204 <211> 232 <212> PRT <213> Enterobacter cloacae <400> 6204 Ala Val Thr Asp Met Asn Ile Leu Asp Leu Phe Leu Lys Ala Ser Leu 10 Leu Val Lys Leu Ile Met Leu Ile Leu Ile Gly Phe Ser Ile Ala Ser Trp Ala Ile Ile Ile Gln Arg Thr Arg Ile Leu Asn Ala Ala Gly Arg Glu Ala Glu Ala Phe Glu Asp Lys Phe Trp Ser Gly Ile Glu Leu Ser Arg Leu Tyr Gln Glu Ser Gln Gly Arg Arg Asp Asn Leu Ser Gly Ser 75 Glu Gln Ile Phe Tyr Ser Gly Phe Lys Glu Phe Ala Arg Leu His Arg 85 90 Ala Asn Ser His Ala Pro Glu Ala Val Val Glu Gly Ala Ser Arg Ala 100 105 110 Met Arg Ile Ser Met Asn Arg Glu Leu Glu Asn Leu Glu Thr His Ile 120 125 Pro Phe Leu Gly Thr Val Gly Ser Ile Ser Pro Tyr Ile Gly Leu Phe 135 140 Gly Thr Val Trp Gly Ile Met His Ala Phe Ile Ala Leu Gly Ala Val 150 155 Lys Gln Ala Thr Leu Gln Met Val Ala Pro Gly Ile Ala Glu Ala Leu 165 170 Ile Ala Thr Ala Ile Gly Leu Phe Ala Ala Ile Pro Ala Val Met Ala 180 185 Tyr Asn Arg Leu Asn Gln Arg Val Asn Lys Leu Glu Leu Asn Tyr Asp 200 195 Asn Phe Met Glu Glu Phe Thr Ala Ile Leu His Arg Gln Ala Phe Thr 215 220 Ser Thr Glu Ser Asn Lys Gly <210> 6205 <211> 144 <212> PRT <213> Enterobacter cloacae <400> 6205 Thr Met Ala Arg Ser Arg Gly Arg Gly Arg Glu Leu Lys Ser Glu Ile Asn Ile Val Pro Leu Leu Asp Val Leu Leu Val Leu Leu Ile 25 Phe Met Ala Thr Ala Pro Ile Ile Thr Gln Ser Val Glu Val Asp Leu 40 45 Pro Asp Ala Thr Glu Ser Gln Ala Val Ser Thr Asn Asp Asp Pro Pro 55 60 Val Ile Ile Glu Val Ser Gly Val Gly Gln Tyr Ser Val Val Glu 70 75

Lys Asp Arg Met Asp Gln Leu Pro Pro Glu Gln Val Ile Ala Glu Ala

Gln Arg Arg Leu Glu Ser Asn Pro Lys Thr Val Phe Leu Ile Gly Gly 105 Ala Lys Asp Val Pro Tyr Asp Glu Ile Ile Lys Ala Leu Asn Leu Leu

90

```
120
His Ser Ala Gly Val Lys Ser Val Gly Leu Met Thr Gln Pro Ile
<210> 6206
<211> 301
<212> PRT
<213> Enterobacter cloacae
<400> 6206
Leu Thr Gln Tyr His Val Ile Arg Asp Pro Arg Glu His Ile Leu Asn
Arg Leu Pro Ser Ser Ala Ser Ala Leu Ala Cys Thr Ala His Ala Leu
Asn Leu Ile Glu Lys Arg Thr Leu Asp His Glu Glu Met Lys Gln Leu
Asn Arg Glu Val Ile Asp Tyr Phe Lys Glu His Val Asn Pro Gly Phe
                        55
Leu Glu Tyr Arg Lys Ser Val Thr Ala Gly Gly Asp Tyr Gly Ala Val
                    70
                                        75
Glu Trp Gln Ala Gly Ser Leu Asn Thr Leu Val Asp Thr Gln Gly Gln
                                    90
Glu Phe Ile Asp Cys Leu Gly Gly Phe Gly Ile Phe Asn Val Gly His
            100
                                105
Arg Asn Pro Val Val Val Ser Ala Val Gln Asn Gln Leu Ala Lys Gln
                            120
Pro Leu His Ser Gln Glu Leu Leu Asp Pro Leu Arg Ala Met Leu Ala
                        135
                                            140
Lys Thr Leu Ala Ala Leu Thr Pro Gly Lys Leu Lys Tyr Ser Phe Phe
                    150
                                        155
Ser Asn Ser Gly Thr Glu Ser Val Glu Ala Ala Ile Lys Leu Ala Lys
                165
                                    170
Ala Tyr Gln Ser Pro Arg Gly Lys Phe Thr Phe Ile Ala Thr Ser Gly
                                185
Ala Phe His Gly Lys Ser Leu Gly Ala Leu Ser Ala Thr Ala Lys Ser
                            200
Thr Phe Arg Lys Pro Phe Met Pro Leu Leu Pro Gly Phe Arg His Val
                        215
                                            220
Pro Phe Gly Asp Ile Asn Ala Met Arg Thr Met Leu Gly Glu Cys Arg
                    230
                                        235
Lys Thr Gly Asp Asp Val Ala Ala Val Ile Leu Glu Pro Ile Gln Gly
                245
                                    250
Glu Gly Gly Val Ile Leu Pro Pro Gln Gly Tyr Leu Pro Ala Val Arg
                                265
                                                    270
Gln Leu Cys Asp Glu Phe Gly Ala Leu Leu Ile Leu Asp Glu Val Gln
                            280
Thr Arg Asp Gly Ala His Arg Gln Asp Val Arg Leu
                        295
<210> 6207
<211> 192
<212> PRT
<213> Enterobacter cloacae
<400> 6207
Ser Ser Thr Lys Cys Lys Pro Gly Met Gly Arg Thr Gly Lys Met Phe
Ala Cys Glu His Glu Asn Val Gln Pro Asp Ile Leu Cys Leu Ala Lys
                                25
```

Ala Leu Gly Gly Val Met Pro Ile Gly Ala Thr Val Ala Thr Glu 35 40 45

```
2455
Glu Val Phe Ser Val Leu Phe Asp Asn Pro Phe Leu His Thr Thr
Phe Gly Gly Asn Pro Leu Ala Cys Ala Ala Ala Leu Ala Thr Ile Asn
                    70
                                        75
Val Leu Leu Glu Gln Asn Leu Pro Ala Gln Ala Glu Gln Lys Gly Asp
                                    90
Met Leu Leu Asp Gly Phe Arg Gln Leu Gly Arg Glu Tyr Pro Asp Leu
                                105
Val Gln Asp Ala Arg Gly Lys Gly Met Leu Met Ala Ile Glu Phe Val
                            120
Asp Asn Glu Thr Gly Tyr Ser Phe Ala Ser Glu Met Phe Arg Gln Arg
                        135
                                            140
Val Leu Val Ala Gly Thr Leu Asn Asn Ser Lys Thr Ile Arg Ile Glu
                    150
                                        155
Pro Pro Leu Thr Leu Thr Ile Glu Gln Cys Glu Gln Val Leu Lys Ala
                                   170
               165
Ala Arg Lys Ala Leu Ala Ala Leu Arg Val Ser Val Glu Glu Ala
                               185
<210> 6208
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 6208
Pro Met Thr Asp Lys Val Asn Ile Met Thr Asp Ala Gly Ala Asp Val
                                   10
Ala Gln Val Ser Leu Ala Val Ala Asn Arg Ile Arg Ser Trp Arg Lys
                                25
Glu Lys Lys Leu Ser Leu Asp Glu Leu Ser Arg Arg Ala Ser Val Ser
                            40
Lys Gly Met Leu Val Glu Ile Glu Lys Gly Ala Ala Asn Pro Ser Ile
                       55
Ala Ile Leu Cys Lys Leu Ala Ala Ala Leu Gly Val Ser Val Ala Asp
                   70
                                        75
Ile Val Asn Val Ser Ser Glu Pro Gln Ile His Ile Ile Arg Glu Glu
                                    90
Ala Ile Pro Val Leu Trp Gln Gly Ala Gln Gly Gly Tyr Ala Arg Leu
                               105
Leu Ala Gly Thr Ala Gly Pro Asp Met Ile Glu Leu Trp Gln Trp Glu
                           120
Met His Pro Gly Glu Thr Phe Thr Ser Pro Gly His Pro Ala Gly Thr
                       135
Phe Glu Leu Leu His Val Asn Glu Gly Met Leu Thr Leu Thr Val Asp
                   150
                                       155
Glu Thr Val Thr Gln Val Ala Ala Gly Ala Ser Ala Val Ala Lys Thr
                                   170
                165
Glu Ala Ala His Gly Tyr Ala Asn Glu Ser Asp Thr Val Leu Arg Phe
```

```
<210> 6209
```

180

195

Thr Met Thr Val Ala Glu Phe His Arg

### <400> 6209

Ile Leu Asn Ser Ser Glu Gln Thr Val Asn Leu Gly Gln Tyr Arg Thr
1 5 10 15
Ala Lys Phe Thr Lys Val Gly Asp Thr Thr Ser Asn Ile Pro Phe Thr

185

<sup>&</sup>lt;211> 138

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

20 25 Ile Glu Leu Asn Asp Cys Asp Pro Ala Val Ala Lys Thr Ala Ala Val 40 Ala Phe Thr Gly Gln Ile Asp Ala Thr Asp Lys Thr Leu Leu Ala Val 55 Ser Ser Gly Asn Asn Asp Asn Ser Ala Lys Gly Val Gly Ile Glu Ile 70 75 Leu Asp Ser Lys Ser Ser Thr Leu Thr Pro Asp Gly Ala Thr Phe Ser Ala Ala Gln Asn Leu Ile Glu Gly Thr Asn Thr Leu Asn Phe Thr Ala 105 Arg Tyr Lys Ala Thr Ala Ala Thr Thr Glu Pro Gly Gln Ala Asn Ala 120 Asp Ala Thr Phe Val Met Lys Tyr Glu 135 <210> 6210 <211> 204 <212> PRT <213> Enterobacter cloacae <400> 6210 Cys Leu Ser Thr Gly Met Trp Leu Ala Ser Gly Lys Arg Ser Phe Asp Arg Leu Tyr Arg Glu Arg Arg Met Thr Arg Thr Gly Ile Leu Leu Cys 25 Ala Leu Ala Ile Ala Pro Ala Val Asn Ala His Thr Val Val Ile Asp 40 Gly Gly Lys Val His Leu Arg Gly Glu Leu Val Asn Gly Gly Cys Ala Val Ala Pro Asp Ser Gln Asn Met Arg Val Asp Met Gly Gln Tyr Arg 70 Thr Asn Ala Phe Ser Gly Val Gly Ser Phe Ser Thr Val Asn Val Pro 90 Phe Thr Val Arg Leu Leu Asp Cys Ser Val Asp Val Ser Arg Thr Val 105 Gly Ile Gln Phe Gln Gly Val Thr Pro Ala Glu Asp Pro Gln Val Phe 120 Leu Ala Thr Ser Arg Pro Gly Glu Asn Ala Val Ser Ser Gly Val Gly 135 140 Leu Ala Leu Phe Asp Glu Gln Gln Arg Gln Ile Ile Pro Asn Ala Thr 150 155 Ala Val Ser Trp Leu Pro Ile Asn Thr Arg Glu Leu Val Phe His Phe 170 165 Ser Ala Arg Tyr Arg Ala Ile Ser Glu His Leu Val Pro Gly Thr Ile 185 180 Gln Ser Asn Val Trp Phe Thr Leu Ile Tyr Pro 195 <210> 6211 <211> 862 <212> PRT <213> Enterobacter cloacae <400> 6211 Arg Gln Pro Val Ser Arg Asp Arg Ala Met Asn Thr Gln Trp Arg Tyr 10 Cys Pro Val Ala Leu Ala Leu Met Ala Thr Leu Trp Pro Leu Ala Gly 25 Trp Gly Glu Ser Tyr Phe Asn Pro Ala Phe Leu Ser Asp Asp Thr Ala

Asn Val Ala Asp Leu Ser Arg Phe Glu Lys Gly His Gln Gln Ala Pro 55 Gly Val Tyr Arg Val Asp Ile Trp Arg Asn Asp Glu Phe Ile Gly Thr 70 75 Gln Asp Val Arg Phe Glu Gln Ala Asp Asn Thr Pro Pro Val Ala Gly 85 90 Gly Leu Ser Pro Cys Ile Thr Arg Ala Met Leu Asp Arg Phe Gly Val 105 100 Asn Ile Ala Ala Phe Pro Glu Leu Ser Asn Val Gln Gly Asp Thr Cys 120 125 Val Pro Leu Thr Thr Ala Ile Pro Gly Ser Glu Ala Ala Phe Asn Phe 135 Ala Ser Leu Arg Leu Asn Val Ser Leu Pro Gln Val Ala Met Gln Asn 150 155 Ser Ala Arg Gly Tyr Ile Pro Pro Glu Gln Trp Asp Glu Gly Ile Pro 170 165 Ala Ala Leu Leu Asn Tyr Ser Phe Thr Gly Asn Arg Gly Ser Asp Asp 185 Asp Ser Tyr Tyr Leu Asn Leu Gln Ser Gly Leu Asn Tyr Gly Ala Trp 195 200 Arg Leu Arg Asn Asn Gly Ala Trp Arg Tyr Thr Glu Ser Asn Gly Gln 215 220 Arg His Ser Ser Trp Gln Asn Ile Gly Thr Trp Ala Gln Arg Thr Ile 230 235 Ile Pro Leu Lys Ser Glu Leu Val Leu Gly Asp Ser Asn Thr Gly Asn 245 250 Asp Val Phe Asp Ser Val Gly Phe Arg Gly Gly Arg Leu Tyr Ser Ser 260 265 270 Asp Ser Met Tyr Pro Asp Ser Leu Gln Gly Tyr Ala Pro Thr Val Arg 280 Gly Ile Ala Arg Thr Pro Ala Lys Val Val Ile Arg Gln Asn Gly Tyr 295 300 Val Ile Tyr Gln Ser Tyr Val Gln Pro Gly Ala Phe Ala Ile Thr Asp 310 315 Leu Asn Pro Thr Ser Ser Ser Gly Asp Leu Glu Val Thr Val Glu Glu 325 330 Lys Asp Gly Ser Gln Gln Arg Tyr Thr Val Pro Tyr Ser Thr Val Pro 345 Leu Leu Gln Arg Glu Gly Arg Trp Lys Tyr Asp Leu Val Ala Gly Asp 360 Tyr Arg Ser Gly Asn Ser Glu Gln Asp Thr Pro Phe Phe Thr Gln Gly 375 380 Thr Met Ile Ala Gly Leu Ala Asp Gly Tyr Thr Leu Tyr Gly Gly Thr 390 395 Gln Leu Ala Ser Arg Tyr Thr Ala Ile Ala Ile Gly Ala Gly Lys Asn 405 410 Leu Gly Asp Trp Gly Ala Val Ser Leu Asp Leu Thr His Ala Arg Ser 425 Gln Leu Ala Asp Asp Ser Arg His Glu Gly Gln Ser Leu Arg Phe Leu 440 Tyr Ala Lys Ser Leu Asn Gly Phe Gly Thr Asn Phe Gln Leu Leu Gly 455 Tyr Arg Tyr Ser Thr Lys Gly Phe Tyr Thr Leu Asp Asp Val Ala Trp 470 475 Arg Thr Met Glu Gly Tyr Gln Tyr Gly Asp Asp Gln Asp Asp Asp Gly 485 490 Val Pro Asp Val Gln Ser Tyr His Asn Leu Thr Leu Asn Lys Lys Gly 505 Arg Phe Gln Leu Asn Ile Ser Gln Ser Leu Gly Asp Tyr Gly Ser Val 520 Tyr Val Ser Gly Ser Gln Gln Asn Tyr Trp Gly Thr Ser Glu Ser Asn

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535
                                             540
Val Trp Tyr Gln Leu Gly Tyr Ala Gly Gly Val Lys Gly Val Ser Tyr
                    550
                                        555
Ala Leu Ser Trp Ser Trp Asn Lys Ala Val Gly Ile Asp Gly Thr Asp
                565
                                    570
Arg Ile Ala Ser Phe Asn Val Ser Val Pro Phe Ser Leu Phe Thr Arg
                                585
His Gly Tyr Arg Arg Asp Asn Ala Ile Asp Arg Ala Tyr Ala Thr Ala
                            600
Ser Ala Ser Arg Asn Ser Asp Gly Asp Thr Ser Trp Gln Thr Gly Ile
                        615
                                             620
Ser Gly Thr Leu Leu Lys Asp Arg Asn Leu Asn Tyr Ser Val Thr Gln
                                        635
                    630
Gly His Thr Ser Asn Asn Gly Ala Ser Gly Ser Ala Ser Ala Asn Trp
                                    650
                645
Gln Ala Thr Tyr Gly Thr Leu Gly Val Gly Tyr Asn Tyr Thr Arg Asp
                                665
Gln His Asp Leu Asn Trp Gln Leu Ser Gly Gly Val Val Gly His Ser
                            680
Asp Gly Ile Thr Phe Ser Gln Pro Leu Gly Asp Thr Asn Val Leu Ile
                        695
                                            700
Lys Ala Pro Gly Ala Ser Gly Val Ser Val Glu Asn Gln Thr Gly Val
                    710
                                        715
Lys Thr Asp Trp Arg Gly Tyr Ala Val Met Pro Tyr Ala Thr Val Tyr
                725
                                    730
Arg Tyr Asn Arg Val Ala Leu Asp Thr Asn Thr Met Ser Asn Asn Thr
                                745
Asp Ile Glu Asn Asn Val Ser Ser Val Val Pro Thr Asn Gly Ala Leu
                            760
Val Arg Ala Ser Phe Asp Thr Arg Ile Gly Val Arg Ala Leu Leu Thr
                        775
                                             780
Val Lys Arg Asp Asn Gln Pro Val Pro Phe Gly Ala Val Val Arg Glu
                                        795
                    790
Thr Gln Ser Gly Val Thr Ser Met Val Gly Asp Asp Gly Gln Ile Tyr
                                    810
Leu Ser Gly Leu Pro Leu Ser Gly Glu Leu Leu Ile Gln Trp Gly Asp
                                825
Gly Lys Gln Ser Gln Cys Arg Ala Pro Tyr Ser Leu Pro Glu Gln Ser
                            840
Leu Gln Gln Ala Ile Thr Leu Lys Gly Ile Arg Cys Glu
<210> 6212
<211> 246
<212> PRT
<213> Enterobacter cloacae
<400> 6212
Phe Ile Pro Asp Ala Cys Glu Leu Ile Ile Lys Gly Thr Val Val Met
                                    10
Asn Thr Leu Ile Lys Pro Gly Leu Phe Leu Ser Phe Ile Leu Met Met
                                25
Val Ser Ala Ser Thr Asn Ala Ser Gly Gly Ile Ala Leu Gly Ala Thr
                            40
Arg Val Ile Tyr Pro Ala Asp Ala Lys Gln Thr Ser Leu Ala Ile Thr
                        55
                                             60
Asn Ser Asn Lys Gln Glu Arg Tyr Leu Ile Asn Ala Trp Ile Glu Asn
```

75

90

Ala Asn Gly Gln Lys Glu Lys Thr Phe Ala Val Thr Pro Pro Leu Phe

Val Ser Glu Pro Ala Ser Glu Asn Thr Leu Arg Ile Ile Tyr Ala Gly

2459 105 Pro Ala Leu Pro Ala Asp Arg Glu Ser Leu Phe Tyr Met Asn Val Lys 120 Ala Ile Pro Ser Val Ser Lys Lys His Gln Asp Gly Asn Asn Val Leu 135 140 Gln Leu Ala Ile Leu Ser Arg Ile Lys Leu Phe Val Arg Pro Ala Asn 150 155 Leu Ala Met Pro Pro Glu Glu Ala Leu Ser Gln Leu Arg Phe Glu Arg 165 170 Val Gly Asn His Leu Lys Val Ser Asn Ala Ser Pro Tyr Tyr Val Thr 180 185 190 Leu Val Asn Leu Lys Leu Gly Gly Gln Thr Leu Asp Asn Leu Met Val 200 205 Ala Pro Lys Ser Ser Ala Gln Gln Val Leu Pro Ala Ala Thr Ser Gly 215 Thr Leu Ser Trp Gln Ser Val Asn Asp Tyr Gly Ala Ile Thr Pro Ala 230 235 Arg Ser Val Ser Leu <210> 6213 <211> 368 <212> PRT <213> Enterobacter cloacae <400> 6213 Phe Ser Gly Glu Thr Gly Ser Ser Pro Ser Val Val Arg Pro Thr Ala 10 Cys Gln Asn Arg Ala Cys Asn Arg Arg Ser His Leu Arg Gly Ser Ala 25 Val Asn Lys Ile His Tyr Leu Gly Leu Ser Leu Leu Ala Phe Leu Pro 40 Leu Ser Gln Ala Phe Ala Thr Val Cys Val Asn Glu Asn Gly Val Pro Thr Glu Val Tyr Tyr Asp Leu Thr Asp Lys Phe Asn Ser Ser Asn Asn 70 75 Gln Val Gly Gln Ile Val Thr Leu Ser Glu Lys Ser Gln Trp Val Gly Val Asn Ala Val Cys Pro Lys Gly Thr Ser Gly Asn Thr Thr Lys Arg 105 110

Ser Tyr Val Thr Asp Tyr Pro Val Thr Gly Thr Ser Asp Gly Tyr Gln 120 125 115 Tyr Leu Lys Leu Asn Asp Tyr Leu Asp Gly Ala Met Lys Ile Thr Asp 135 140 Ser Tyr Ala Gly Thr Phe Tyr Pro Pro Arg Lys Tyr Ile Gln Met Gly 150 155 Ser His Pro Asn Val Ser Lys Asn Lys Pro Phe Gly Val Gln Asp Ser 165 170 Ser Leu Val Phe Arg Leu Lys Val Thr Arg Arg Phe Ile Asn Met Val 180 185 190 Val Ile Pro Arg Ala Thr Met Phe Arg Val Tyr Val Thr Thr Ser 200 205 Ser Asp Pro Leu Thr Thr Pro Val Tyr Thr Ile Ser Tyr Ser Gly Thr 215 Ile Gln Val Pro Gln Ser Cys Glu Ile Asn Ala Gly Asn Val Val Glu 230 235 Phe Asp Phe Gly Asp Ile Gly Ala Ser Leu Phe Ser Lys Ala Gly Ile 250 Gly Asn Lys Pro Glu Gly Ile Ser Ala Gln Ser Lys Thr Ile Gly Ile 265

Lys Cys Thr Asn Val Glu Ala Asn Ala Met Leu Thr Met Arg Val Glu

<212> PRT

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280
Ala Glu Lys Val Ser Gly Ser Thr Leu Val Ser Asp Asn Ala Asp Val
                        295
                                            300
Gly Phe Val Ile Ala Asn Ser Asn Gly Val Pro Leu Thr Pro Asn Asn
                    310
                                        315
Leu Thr Ser Lys Ile Pro Phe Arg Leu Asp Asp Ser Ala Gln Ala Gln
                325
                                    330
Val Gly Ile Arg Ala Trp Pro Val Ser Val Thr Gly Lys Lys Pro Ala
            340
                                345
                                                     350 ·
Glu Gly Arg Phe Thr Ser Arg Gly Tyr Leu Arg Val Asp Tyr Asp
                            360
<210> 6214
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 6214
Thr Tyr Phe Leu Phe Pro Asn Met Arg Gly Lys Gly Tyr Leu His Phe
                                    10
Lys Gly Ile Asp Met Lys Leu Ser Asn Ile Ala Ser Thr Val Ile Ala
                                25
            20
Thr Leu Ala Leu Val Ala Gly Ala Ala His Ala Glu Asp Pro Val Ala
                            40
Pro Val Ser Val Asn Gly Gly Thr Val His Phe Lys Gly Glu Leu Val
                        55
Asn Ala Ala Cys Ser Val Asn Thr Glu Leu Phe Arg Ala Asp Gly
<210> 6215
<211> 166
<212> PRT
<213> Enterobacter cloacae
<400> 6215
Pro Ser Arg Cys Phe Ala Leu Cys Ser Pro Ala His Ala Glu Met Ala
                                    10
Leu Gly Glu Ile Asn Ile Gln Leu Tyr Gly Asn Ile Val Asp Phe Thr
                                25
Cys Val Ala Glu Gly Asp Asp Ser Asn Lys Thr Val Thr Ile Gly Thr
                            40
Trp Pro Thr Lys Gln Leu Arg Thr Thr Gly Ser Arg Thr Gln Pro Val
                        55
Leu Phe Thr Leu Lys Leu Thr Gly Cys Pro Pro Gly Ala Ala Ser Val
                   70
                                        75
Thr Phe Thr Gly Lys Met Asp Gly His Asp Asn Ser Leu Leu Ala Leu
                                    90
Asn Asp Ala Ser Ala Ala Ser Asn Val Ser Val Glu Ile Leu Asp Arg
                                105
Asp Lys Thr Arg Leu Ala Leu Gln Gln Ala Ser Gln Thr Val Ala Val
                            120
Asp Ala Gln Gly Asn Ala Glu Leu Ser Phe Tyr Ala Asn Tyr Ile Ala
                        135
                                            140
Thr Ala Asp Asn Pro Gln Pro Gly Arg Ala Asp Ala Asp Ala Thr Phe
                    150
Met Ile Asn Tyr Asn
                165
<210> 6216
<211> 167
```

<213> Enterobacter cloacae <400> 6216 Arg Tyr Leu Arg Ile Phe Pro Arg Leu Ile Pro Leu Phe Ser Asp Leu 10 Asn Gln Leu Ser Ser Arg Leu Val Val Asn Ile Glu Thr Arg Ala Ser Pro Ile Ile Asp Leu Leu Asp Arg Leu Arg Arg His Ser Leu Leu Ala Pro Tyr Leu Thr Pro Tyr Met Phe Phe Arg Ala Asp Asp Tyr Asp 55 Ala Arg Leu Phe Cys Lys Ala Ala Gly Pro Phe His Val Leu Ala Arg 70 75 Gln Leu Thr Ala Leu Asp Met Gln Gln Thr Leu Met Glu Ala Pro Ala 90 85 Pro Ala Gly Asn Arg Lys Glu Trp Phe Ser Arg Asp Glu Trp Pro Ile 105 Leu Gln Ala Leu Ser Gln Gly Ser Ser Leu Arg Gln Ile Ala Gln Leu 120 Gln Asn Arg Pro Tyr Ser Cys Ile Ile Tyr Ser Leu Ser Cys Ile Leu 135 140 Ala Lys Leu Gly Leu Asn Tyr Arg His Glu Leu Leu His Leu Leu Asn 150 155 Asn Leu Ser Asp Phe Thr Tyr <210> 6217 <211> 92 <212> PRT <213> Enterobacter cloacae <400> 6217 Gln Arg Arg Ser Leu Leu Thr Lys Tyr Arg Gln Ser Pro Leu Ser Asn Val Thr Asp Gly Ile Phe Ser Leu Met Ala Ala Lys Ile Ile Asp Gly Lys Thr Ile Ala Gln Gln Val Arg Ser Glu Val Ala Glu Lys Val Lys

<210> 6218 <211> 212 <212> PRT

<213> Enterobacter cloacae

<400> 6218

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Val Leu Phe Leu Ser Ser Lys Ser Glu Ala Leu Tyr Ala Gly Arg Ala
                                    90
Ile Arg Ala Gly Asp Asn Gly Phe Val Ser Lys Arg Lys Asp Leu Gly
                                105
            100
                                                    110
Glu Ile Tyr Asn Ala Val Glu Met Ile Leu Thr Gly Tyr Ser Phe Phe
        115
                            120
                                                125
Pro Ser Glu Thr Leu Ser Phe Ile Asn His Leu Gly Ser Arg Thr Gly
                        135
                                            140
Ala Ala Val Asp Met Pro Leu Ser Asn Arg Glu Val Thr Val Leu Arg
                                        155
                    150
Tyr Leu Ala Asn Gly Leu Ser Asn Lys Glu Ile Ala Asp Gln Leu Leu
                165
                                    170
Leu Ser Asn Lys Thr Ile Ser Ala His Lys Ser Asn Ile Phe Ser Lys
           180
                                185
Leu Gly Val Gln Ser Ile Val Glu Leu Ile Asp Tyr Ala Lys Ala His
       195
                            200
Glu Leu Leu
   210
<210> 6219
<211> 251
<212> PRT
<213> Enterobacter cloacae
<400> 6219
His Ser Met Asn Leu Gln Thr Tyr Glu Ser Thr Ser Ala Ile Thr Met
    5
                                    10
Ser Ala Ile Ser Asn Ala Ile Leu Asn Gly Leu Ser Pro Leu Arg Val
                                25
Thr Ile Pro Met Thr Gly Val Glu Trp Ala Asp Lys Tyr Phe Tyr Leu
                            40
                                               45
Pro Glu Gly Ser Ser His Ile Ala Gly Arg Trp Lys Thr Gln Pro Val
                       55
                                           60
Gln Leu Ala Met Leu Asn Met Met Thr Asn Asp Ala Ile Lys Ile Val
                   70
                                       75
Ser Ile Arg Lys Ser Ala Arg Leu Gly Tyr Thr Lys Val Met Val Val
                                   90
Ala Leu Leu Tyr Phe Ala Glu His Lys Lys Arg Ser Ser Val Ala Tyr
                               105
Gln Pro Val Asp Asp Glu Ala Glu Gly Phe Val Ser Asp Glu Ile Asp
                           120
Pro Ala Ile Cys Glu Met Pro Val Ile Gln Lys Ile Phe Pro Asp Trp
                       135
Asp Ser Ser Asn Glu Arg Asn Asn Ile Lys Arg Lys Glu Met Ser Gly
                   150
                                       155
Ala Ile Leu Asp Phe Arg Gly Ala Asn Ser Pro Gly Asn Phe Arg Arg
                                    170
               165
Leu Thr Lys Gln Val Val Ala Gly Asp Glu Val Asp Gly Trp Pro Leu
                               185
                                                   190
Glu Val Ser Lys Lys Gly Lys Gly Glu Gly Ser Pro Ile Glu Leu Ala
                            200
                                                205
Leu Val Arg Ile Lys Gly Ala Ser Tyr Pro Lys Ala Ile Phe Gly Ser
                        215
                                           220
Thr Pro Thr Val Thr Gly Lys Ser Gln Ile Glu Met Leu Glu Asp Gly
                    230
                                        235
Ala Asp Leu Val Phe Arg Phe Tyr Leu Pro
                245
<210> 6220
```

<sup>&</sup>lt;211> 111

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

<210> 6221 <211> 180 <212> PRT

<213> Enterobacter cloacae

<400> 6221

Leu Asn Arg Ser Ser Pro Val Met Lys Ser Thr Ala Gly Arg Leu Lys Ser Arg Arg Lys Ala Arg Ala Lys Gly Arg Arg Leu Asn Trp Leu Trp Tyr Val Leu Arg Ala Arg His Thr Arg Lys Pro Phe Ser Ala Leu Leu Arg Pro Leu Pro Ala Lys Ala Arg Leu Lys Cys Ser Arg Met Ala Pro Ile Trp Ser Ser Gly Phe Ile Cys Leu Ser Ala Gln Ala Ala Ser Asn 70 Glu Leu Ala Arg Val Met Ser Ile Ile Gly Cys Glu Glu Ala Lys Gly 90 Arg Glu Gln Gln Ala His Ala Leu Ala Ala Ile Pro Gly Met Thr Leu 105 Asp Gln Ala Lys Ala Val Leu Ala Ala Pro Gln Thr Ala Gln Ala 120 125 Arg Thr Glu Thr Ala Leu Asp Ala Leu Met Thr Lys Glu Ser Pro Glu 135 140 Ala Val Ala Tyr Met Pro Ala Gln His Asn His Ser Ala Asp Gly Ser 150 155 Ala Ala Lys Ile Ser Leu Leu Val Gln Ala Gly Lys Ser Leu Ile Glu 170

Glu Gln Leu 180

1.

<210> 6222 <211> 345

<212> PRT

<213> Enterobacter cloacae

<400> 6222

```
Val Ser Met Ala Val Tyr Cys Ser Pro Leu Ile Thr Gly Lys Val Asp
                        55
Arg Thr Arg Gly Phe Lys Thr Thr His Phe Lys Pro Gly Tyr Thr Lys
                    70
                                        75
Pro Lys His Thr Val Asn Pro His Thr Val Ile Lys Arg Ser Ala Gly
                                    90
                85
Glu His Ile Gly Gln Pro Lys Thr Pro Ala Glu Arg Arg Ala Glu Ile
            100 ·
                                105
Ile Met Gln Asn Leu Lys Asp Glu Glu Leu Ser Ile Gln Gln Leu Glu
                            120
                                                125
Glu Tyr Gln Ala Val Gln Ala Val Leu Lys Gly Lys Tyr Thr Ile Ser
    130
                        135
                                            140
Gly Pro Asn Ile Asp Thr Thr Glu Ile Asp Met Gln Arg Ser Val Ala
                    150
                                        155
Asn Asn Ile Val Gln Ser Gly Ser Thr Ala Trp Ser Ala Gln Asn Lys
                                    170
                165
Asp Thr Phe Asp Pro Ser Asn Asp Ile Glu Glu Tyr Ala Glu His Ala
            180
                                185
Ser Gly Thr Ile Asn Val Met Val Leu Asp Gly Lys Ala Trp Lys Thr
                            200
Leu Lys Ser Phe Lys Leu Phe Arg Glu Ala Leu Asp Thr Arg Arg Gly
                        215
                                            220
Ser Asn Ser Lys Leu Glu Leu Ala Leu Lys Asn Leu Gly Asp Val Val
                    230
                                        235
Ser Phe Lys Gly Tyr Tyr Gly Asp Thr Ala Val Ile Val Tyr Lys Gly
               245
                                    250
Gln Tyr Ile Asp Pro Asp Thr Lys Ala Lys Thr Lys Tyr Met Pro Asp
            260
                                265
Asn Thr Ile Ala Leu Gly Asn Leu Gln Ser Lys Gly Tyr Arg Thr Tyr
                            280
                                                285
Gly Ala Val Gln Asp Glu Asp Ala Leu Arg Glu Gly Ile Thr Glu Ala
                        295
                                            300
Thr Arg Tyr Pro Lys Ile Trp Thr Thr Thr Gly Asp Pro Ser Ile Thr
                    310
                                        315
Gln Thr Met Thr Gln Ser Ala Pro Ala Met Val Leu Ala Asp Ala Asp
                325
                                    330
Ala Phe Val Ile Val Thr Leu Ala
                                345
            340
```

<210> 6223 <211> 148

<212> PRT

<213> Enterobacter cloacae

<400> 6223

<221>UNSURE

Tyr Val Asp Pro Glu Glu Ala Ala Leu Leu Ile Ala Ala Asn His Val 130 135 Tyr Ala Leu 145 <210> 6224 <211> 330 <212> PRT <213> Enterobacter cloacae <400> 6224 Phe Leu Ile Val Ala Phe Glu Ala Ser Arg Ile Ala Asn Glu Val Ser 10 Met Ile Lys Gln Lys Thr Ile Lys Asn Ile Val Glu Leu Ser Gly Ile 25 Gly Leu His Ser Gly Ser Ser Ile His Met Lys Ile Met Pro Ala Thr 40 Ala Asn Ser Gly Ile Arg Phe Arg Arg Thr Asp Leu Asn Pro Ser Val 5.5 60 Asp Ile Gln Leu Arg Ala Glu Gln Val His Asp Thr Met Leu Ala Thr 70 75 . Ser Leu Ile Asn Pro Gln Gly Ile Arg Val Ser Thr Ile Glu His Phe 90 8.5 Leu Ser Ala Val Ser Ser Leu Gly Ile Asp Asn Leu Leu Val Glu Leu 100 105 Asp Ala Pro Glu Leu Pro Ile Leu Asp Gly Ser Ala Arg Glu Phe Ile 115 120 125 Asp Ser Leu Ile Asn Ala Gly Ser Ile Glu Gln Cys Ala Leu Lys Lys 135 140 Tyr Leu Leu Ile Lys Lys Thr Val Ser Val Lys Asp Gly Asp Lys Trp 150 155 Ala Leu Leu His Pro Asp Ser Lys Phe Ser Val Asp Phe Thr Ile Asp 170 165 Phe Lys His Pro Leu Ile Ser Ala Asp Thr Asn Lys Leu Asn Ile Glu 190 185 180 Met Ser Lys Glu Lys Tyr Ile Glu Glu Ile Ala Gly Ala Arg Thr Phe · 195 200 205 Gly Phe Val His Asp Val Glu Lys Leu Gln Lys Ile Gly Leu Val Leu 215 220 Gly Ala Gly Leu Asn Asn Ala Ile Gly Leu Asp Glu Tyr Ser Val Leu 230 235 Asn Pro Glu Gly Leu Arg Phe Asn Asn Glu Leu Val Arg His Lys Val 245 250 Leu Asp Ala Ile Gly Asp Leu Phe Val Ser Gly Tyr Asn Ile Ile Gly 265 Ala Tyr His Ala Tyr Lys Ser Gly His Ala Leu Asn Asn Lys Leu Met 280 Leu Ala Leu Leu Asn Asp Thr Asp Ala Trp Glu Phe Val Asn Leu His 295 Asp Tyr Ser Arg Gly Lys Leu Lys Val Asn Met Leu Pro Ala Ile Asn 310 315 Lys Glu Cys Pro Val Ser Leu Thr Ile 330 325 <210> 6225 <211> 151 <212> PRT <213> Enterobacter cloacae <220>

#### <222>(6)

<400> 6225 Tyr His Arg Ile Ala Xaa Gly Glu Arg Met Ser Thr Ile Gly Asp Ala 10 Ala Arg Leu Ser Gly Val Ser Ala Lys Met Ile Arg Tyr Tyr Glu Glu Ala Gly Leu Ile Pro Ser Val Ser Arg Thr Ala Ala Gly Tyr Arg Ile Tyr Lys Asp Val Asp Val Tyr Lys Leu His Phe Ile Arg Arg Cys Arg 55 Glu Leu Gly Phe Ser Leu Ser Gln Thr Gly Asp Leu Leu Ser Leu Trp 75 70 Gly Asn His Ser Arg Gln Ser Ala Asp Val Lys Lys Leu Val Glu Ser 85 90 His Ile Asn Asp Leu Thr Ser Lys Ile Glu Glu Leu Gln Arg Ile Ala 105 100 Ser Thr Leu Thr Thr Leu Ser Asp Cys Cys Ala Gly Asp Asp Lys Pro 125 120 Asp Cys Pro Ile Leu Arg Ala Leu Tyr Leu Ala Glu Thr Ser Arg Lys 135 Asp Lys Glu Asn Ser Pro

<210> 6226 <211> 311

<211> 311 <212> PRT

<213> Enterobacter cloacae

<400> 6226 Leu Met Lys Phe Pro His Phe Phe Ile Gln Arg Pro Ile Phe Ala Ile

Val Leu Ser Leu Phe Met Leu Ile Ala Gly Ala Leu Ala Phe Phe Gln Leu Pro Leu Ser Glu Tyr Pro Ser Val Thr Pro Pro Thr Val Gln Val Thr Ala Ser Tyr Pro Gly Ala Asn Pro Asn Val Ile Ala Asp Thr Val Ala Ala Pro Leu Glu Gln Ala Ile Asn Gly Val Glu Gly Met Leu Tyr Met Ser Ser Gln Thr Ser Ser Asp Gly Arg Met Val Leu Thr Ile Ser Phe Arg Gln Gly Thr Asp Pro Asp Ile Ala Gln Ile Gln Val Gln Asn 105 Arg Val Ser Arg Ala Leu Pro Arg Leu Pro Ser Glu Val Gln Gln Ile 120 Gly Val Val Thr Glu Lys Thr Ser Pro Asp Ile Leu Met Val Val His 135 140 Leu Phe Ser Pro Asp Asn Arg Tyr Asn Pro Leu Tyr Val Ser Asn Tyr 150 155 Ala Met Leu Asn Val Arg Asp Glu Leu Ser Arg Leu Pro Gly Ile Ala 170 Ser Ile Ala Leu Trp Gly Glu Gly Glu Tyr Ala Met Arg Val Trp Leu 185 Asp Pro Asn Lys Ile Ala Ser Arg Gly Leu Thr Ala Ser Asp Val Thr 200 205 Ser Ala Ile Lys Glu Gln Asn Val Gln Val Ala Ala Gly Ser Val Gly 215 220 Gln Gln Pro Asn Thr Ser Ser Phe Gln Val Thr Val Asn Ala Leu 230 235 Gly Arg Leu Thr Thr Glu Glu Gln Phe Gly Asp Ile Ile Lys Ser

245 250 Gly Thr Asp Gly Gln Val Thr Arg Leu Arg Asp Val Ala Arg Ile Glu 265 Leu Gly Ser Asp Asn Tyr Ser Leu Arg Ser Leu Leu Asp Asn Lys Asp 280 Ala Val Gly Met Gln Ile Val Met Thr Pro Gly Ala Asn Ala Leu Asp 295 Val Ser Ala Ser Val Arg Ser <210> 6227 <211> 1213 <212> PRT <213> Enterobacter cloacae <400> 6227 Gly His Cys Ile Trp Arg Arg Leu Arg Val Arg Thr Arg Lys Ile Val 10 Leu Asp Val Ile Ile Ala Thr Tyr Leu Glu Ser Leu Gln Pro Gly Phe 20 25 Ile Val Arg Asn Leu Tyr Ala Val Asn Phe Asn Gly Asn His Cys Leu 40 His Lys Glu Gln Leu Gln Leu Ser Lys Asp His Phe Leu Leu Val Arg . 55 Phe Thr Met Leu Asn Ile Ile Pro Gly Tyr Cys Thr Leu Cys Arg Ser 75 Arg Cys Gly Thr Leu Asn Glu Val Ile Glu Asp Leu Leu Phe Leu Val Arg Pro Asn Pro Val Leu Pro Phe Gly Lys Ala Met Cys Met Lys Gly 105 Lys Ala Ala Pro Glu Leu Val Asp Ser Ala Asn Arg Ile Leu His Pro 120 Met Lys Arg Thr His Pro Lys Gly Ala Glu Asn Pro Gly Trp Gln Arg 135 Ile Ser Trp Glu Glu Ala Met Ser Thr Ile Ala Gly Gln Leu Lys Lys 150 155 Phe Lys Asn Glu Asn Gly Ala Glu Ser Val Ala Phe Gly Phe Thr Ser 165 170 Pro Ser Gly Thr Pro Leu Ser Asp Ala Ile Glu Trp Leu Glu Arg Phe 180 185 190 Val Arg Ile Tyr Gly Ser Pro Asn Thr Ser Tyr Gly Thr Glu Ile Cys 200 Asn Trp His Lys Asp Val Ala His Arg Trp Thr Phe Gly Cys Gly Ile 215 220 Pro Val Ala Asp Tyr Ser His Ala Glu Leu Ile Ile Leu Trp Gly His 230 235 Asn Pro Ala Asn Thr Trp Leu Ala Gln Ala Asn Ala Ile Gly Thr Gly 245 250 Arg Asn Asn Gly Ala Lys Leu Ile Val Ile Asp Pro Arg Pro Thr Pro 265 260 270 Leu Ala Lys Glu Ala Asn Ala Trp Leu Asn Val Cys Pro Gly Thr Asp 280 285 Gly Ala Leu Ala Leu Gly Leu Ser His Leu Leu Val Glu Arg His Met 295 300 Phe Asn Gln Glu Phe Val Arg Asp Trp Thr Asn Gly Pro Leu Leu Ile 310 315 Arg Asn Asp Asn Gly Tyr Phe Leu Arg Glu Ile Asp Ile Asn Pro Phe . 330 Ala Thr Ser Asn Arg Tyr Val Val Trp Asp Glu His Ile Gln Gln Val 345

Ile Phe Ile Asp Ser Glu Thr Arg Thr Glu Glu Thr Leu Thr Pro Thr

360 Ala Ala Leu Glu Ser Asp Val Glu Val Thr Leu Ala Asp Gly Gly Lys 375 380 Ile Ser Cys His Thr Ala Phe Ser Ser Phe Lys Asn Ile Leu Ala Asn 390 395 Tyr Ser Pro Glu Asn Val Ser Arg Ile Thr Gly Ile Ser Val Ala Ser 405 410 Ile Glu Ala Ala Ala Ser Met Ile Gly Asn Ala Lys Lys Ile Ala Tyr 425 420 430 His Ser Trp Ser Gly Val Ala Gln His Thr Asn Ala Thr Gln Thr Glu 440 445 435 Arq Ala Ile Ala Thr Leu Tyr Ala Leu Thr Gly Cys Phe Asp Gln Glu 455 460 Gly Cys Asn Arg Ile Tyr Ala Ser His Pro Val Asn Val Val Asn Ser 470 475 Pro Thr Leu Met Pro Lys Thr Gln Trp Glu Lys Ala Leu Gly Leu Glu 490 485 Glu Arg Pro Ile Gly Pro Pro Ser Gln Gly Trp Val His Ser Gln Asp 505 Ile Trp His Ser Val Leu Glu Gly Thr Pro Tyr Lys Ile Arg Gly Leu 520 Ile Gly Phe Gly Ala Asn Ile Leu Leu Ser Gln Ser Asp Thr Ser Leu 535 540 Gly Gln Gln Ala Leu Glu Ala Leu Glu Phe Tyr Ala His Val Asp Leu 550 555 Phe Glu Thr Pro Thr Ser Lys Tyr Ala Asp Ile Leu Leu Pro Val Asn 565 570 Thr Ala Trp Glu Arg Glu Gly Leu Arg Ala Gly Phe Glu Ser Ser Ala 580 585 Ala Ala Gln Glu His Ile Gln Leu Arg Lys Gln Met Val Ser Pro Arg 595 600 Gly Glu Ser Arg Ser Asp Leu Glu Ile Val Phe Asp Leu Ala Cys Arg 615 620 Leu Gly Met Asn Glu Ala Phe Phe Asp Gly Asn Ile Glu Ser Ala Trp 630 635 Asn Tyr Gln Leu Lys Pro Leu Gly Leu Thr Val Glu Met Leu Arg Asn 650 645 Lys Pro Glu Gly Tyr Asp Ile Pro Leu Glu His Lys Val Arg Lys Tyr 665 Ala Leu Lys Asp Gln Lys Thr Gly Tyr Leu Thr Gly Phe Asn Thr Glu 680 685 Thr Lys Arg Ala Glu Phe Tyr Ser Glu Val Leu His Arg His Gly Tyr 695 700 Asn Pro Leu Pro Glu Tyr Val Gln Pro Gln Glu Tyr Gln Arg Asn Asp 715 710 Pro Asp Phe Pro Leu Met Leu Thr Ser Val Lys Ser Gly Phe Phe Cys 730 725 His Ser Gln His Arg Ser Leu Thr Ser Leu Arg Lys Lys Ala Ser Tyr 740 745 750 Pro Thr Val Glu Ile Ser Val Thr Leu Ala Asp Glu Glu Lys Ile Lys 760 765 Thr Gly Asp Trp Val Glu Ile Glu Thr Arg Val Gly Gln Ala Arg Phe 775 780 Arg Ala Lys Val Glu Glu Lys Leu Ser His Glu Thr Val Ile Ala Glu 795 Phe Gly Trp Trp Gln Gly Cys Pro Asp Phe Gly Lys Pro Ser Tyr Pro 805 810 Val Ile Gly Glu Phe Ser Ser Asn Phe Asn Ser Leu Ile Ser Gly Asp 825 Ser Tyr Asp Pro Val Ser Gly Ala Leu Pro Leu Arg Ser Phe Arg Cys 840 845

```
Arg Ile Arg Arg Leu Asn Glu Phe Glu Leu Val Arg Arg Pro Trp Asp
                       855
Gly Arg Arg Thr Phe Gln Val Ile Ser Leu Lys Lys Glu Thr Asp Asn
                   870
                                       875
Val Thr Thr Val Thr Phe Gln Ser Lys Ala Glu Gly Phe Leu Pro Asp
               885
                                   890
Tyr Glu Pro Gly Gln His Val Thr Ile Ser Cys Tyr Pro Leu Ile Asp
                                905
            900
Ser Glu Asp Ile Val Thr Arg Ala Tyr Ser Leu Thr Gly Pro Ala Phe
                           920
                                               925
        915
Val Asp Ala Arg Lys Thr Tyr Ser Ile Ser Val Arg His Gln Thr Ala
                       935
                                           940
Arg Asp Glu Asn Gly Glu Phe Val Glu Gly Ile Met Ser Ser Phe Ile
                    950
                                        955
Asn Thr Arg Leu Gln Val Gly Ser Phe Val Glu Ile Thr Pro Pro Gly
               965
                                   970
Gly Asn Phe Ile Val Pro Leu Asn Ala Met Gln Pro Val Val Ile Phe
                                985
Ala Gly Gly Ile Gly Ile Thr Pro Phe Ile Cys Tyr Leu Glu Ser Ile
                           1000
Asp Pro Asp Glu Thr Gly Pro Glu Ile Trp Leu Phe Tyr Ala Asn Gln
                       1015
                                           1020
Asn Ser Lys Gln His Ala Phe Lys Lys Arg Ile Gln Glu Leu Ser Ser
                   1030
                                       1035
Leu Ile Ser Arg Leu Lys Val Ile Asn Val Tyr Asn Gln Pro Leu Asp
               1045
                                   1050
Cys Asp Val Leu Gly Glu Asp Tyr Asp Arg Ala Gly Phe Ala Gly Ala
           1060
                               1065
                                                   1070
Gly Asp Val Asp Ala His Leu Ile Glu Asn Asn Ala Arg Tyr Tyr Met
       1075
                           1080
                                               1085
Cys Gly Pro Met Pro Met Met Glu Ala Ile Ser Lys Gly Leu Gln Gln
   1090
                       1095
                                           1100
Arg Gly Val Pro Ala Phe Ala Ile Phe Tyr Glu Ile Phe Arg Ser Pro
                   1110
                                       1115
Ala Lys Ile Asn Asp Asp Pro Ser Leu Arg His Lys Val Thr Phe Ala
               1125
                                   1130
                                                       1135
Lys Ser Gly Arg Glu Glu Ile Trp Thr Thr Asp Lys Gly Thr Leu Leu
                               1145
           1140
                                                   1150
Asn Phe Gly Glu Lys Leu Gly Ile Ser Met Pro Ser Gly Cys Arg Val
       1155
                           1160
                                               1165
Gly Gln Cys Glu Ser Cys Ser Thr Lys Val Ile Thr Gly Ser Val Gln
                       1175
   1170
                                           1180
His Leu Asn Asn Val Glu Pro Ser Asp Glu Gly Ala Cys Leu Thr Cys
                   1190
                                       1195
Gln Cys Ile Pro Ala Gly Asp Ile Thr Ile Asp Ala
               1205
```

<210> 6228

<211> 433

<212> PRT

<213> Enterobacter cloacae

<400> 6228

Glu Ile Ala Thr Gly Ala Asn Phe Gly Leu Ser Glu Gly Phe Trp Gly
1 5 10 15

Thr Lys Arg Val Ile Met Met Lys Met Ser Ile Arg Thr Met Val Met
20 25 30

Ala Val Ala Val Ala Ile Thr Ala Ser Thr Ser Val Ala Val Ala Lys
35 40 45

Glu Asp Gly Ser Gly Lys Thr Ser Thr Ala Gln Ile Pro Ala Gly Pro

```
Gln Val Pro Val Ala Glu Val Ile Ser Arg Asn Ile Ile Pro Ser Ala
                    70
Glu Phe Thr Gly Ser Leu Ala Ala Ile Lys Thr Val Glu Leu Arg Pro
                85
                                   90
Arg Val Gly Gly Thr Ile Glu Ser Val Ser Val Pro Glu Gly Ser Leu
            100
                               105
Val His Lys Gly Gln Leu Leu Phe Gln Ile Asp Pro Arg Pro Phe Gln
                           120
Val Ala Leu Asp Ser Ala Lys Ala Gln Leu Arg Gln Ala Glu Ala Gln
                       135
Ala Phe Gln Ala Asn Arg Asn Phe Glu Arg Val Ser Arg Leu Val Asn
                    150
                                       155
Asn Gly Ala Val Ser Arg Lys Asp Tyr Asp Asp Ala Ala Ser Asp Lys
               165
                                   170
Asn Ala Arg Ile Ala Gln Val Asn Val Ala Gln Ala Val Glu Ala
                               185
Ala Lys Leu Asp Leu Ser Tyr Thr Arg Val Thr Ala Pro Ile Asp Gly
                           200
                                               205
Arg Val Asp Arg Ile Leu Ile Thr Glu Gly Asn Leu Ile Ser Asn Ser
                       215
                                           220
Glu Gly Gly Ala Ala Thr Leu Leu Thr Thr Ile Val Ser Ser Asn Pro
                   230
                                       235
Leu Tyr Ala Tyr Phe Asp Ile Asp Glu Ala Thr Phe Leu Asn Thr Val
               245
                                   250
Ser Lys Ala Arg Pro Asp Ala Met Glu Gly Ser Lys Glu Lys Leu Pro
           260
                               265
                                                   270
Val His Val Gly Leu Ala Thr Glu Lys Gly Tyr Pro His Ser Gly Thr
                           280
                                               285
Leu Asp Phe Val Gly Asn Gln Ile Asp Arg Asn Thr Gly Thr Val Arg
                       295
                                           300
Val Arg Ala Ile Ile Pro Asn Thr Asp Gly Leu Leu Thr Pro Gly Ala
                   310
                                       315
Phe Ala Arg Val Gln Leu Gly Thr Gly Lys Ala Gln Gln Val Ile Leu
               325
                                   330
Ile Asn Asp Gln Ala Val Gly Thr Asn Gln Gly Asn Lys Tyr Val Leu
                               345
Val Ile Gly Asp Asp Ser Lys Ala Gln Tyr Arg Pro Ile Glu Leu Gly
                           360
                                               365
Pro Val Val Asp Gly Leu Arg Ile Val Ala Lys Gly Leu Gln Ala Gly
                       375
                                           380
Glu Lys Ile Ile Lys Gly Leu Val Arg Pro Gly Met Ala Val Thr
                   390
                                       395
Pro Ser Met Val Ser Met Gln Ser Leu Glu Ser Ser Leu Asp Ala Lys
                                  410
Pro Ala Thr Gln Gly Lys Ala Ser Asp Ser Asn Asn Lys Gly Gly Asn
```

```
<210> 6229
```

<400> 6229

Thr Val Arg Cys Ser Gly Arg Asp Pro Pro Ser Ser Glu Arg Val Glu

1 5 10 15

Ala Gly Tyr Gly Arg Thr Gly His Ile Lys Lys Ser Arg Gly Val Leu
20 25 30

Arg Lys Ala Val Arg Leu Arg Tyr Ala Phe Ile Arg Asp Asn Ser Arg
35 40 45

<sup>&</sup>lt;211> 182

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Cys Trp Pro Val Arg Leu Leu Cys Arg Val Leu Asp Val His Pro Ser Gly Phe Tyr Phe Trp Leu Gln Gln Pro His Ser Gln Arg His Gln Thr 75 Asp Gln Met Leu Thr Gly Gln Ile Lys Gln Phe Trp Leu Glu Ser Gly 90 Cys Val Tyr Gly Tyr Arg Lys Ile Asn Leu Asp Leu Arg Asp Thr Gly 100 105 Gln Gln Cys Gly Val Asn Arg Val Trp Arg Leu Met Lys Arg Ala Gly 120 125 Ile Lys Ala Gln Val Gly Tyr Arg Thr Pro Arg Ala Arg Lys Gly Glu 135 Ser Ser Ile Val Thr Pro Asn Met Leu Gln Arg Gln Phe Asn Pro Asp 150 155 Ser Pro Asp Glu Arg Trp Val Thr Asp Ile Thr Tyr Ile Arg Thr His 165 170 Glu Cys Trp Leu Tyr Leu 180

<210> 6230 <211> 97 <212> PRT

<213> Enterobacter cloacae

<210> 6231 <211> 794 <212> PRT <213> Enterobacter cloacae

 400> 6231

 Arg Gln Arg Leu Trp Glu Met Lys Lys Asn Ile Glu Asn Phe Glu Thr

 1
 5
 10
 15

 Phe Ile Ile Glu Gln Lys Ala Trp Phe Glu Glu Asn Leu Ala Ala Asp 20
 25
 30

 Phe Ala Glu Ser Trp Asp Ser Phe Val Trp Ile Cys Gly Ile Lys Gly 35
 40
 45

 Ser Gly Trp Leu Arg Gly Asn Gly Ala Asn Leu Leu Arg Phe Asp Glu 50
 55
 60

 Val Asn Arg Leu Lys Gly Ile Asp Asp Arg His Thr Val Ser Glu Pro 75
 80

 Tyr Gln Leu Phe Met Lys Ala Met Leu Val Leu Val Tyr Arg Gly Arg 85
 90
 95

 Asn Arg Ser Ile Ser Ser Ala Val Ala Val Ala Thr Leu Ile Ile Leu 100
 105
 110

 Lys Arg Trp Tyr Cys Ala Leu Ile Lys Leu Thr Gly Gln Thr His Pro
 10
 10

120 125 Ile Tyr Leu Thr Thr Asp Val Val Arg Ser Ala Met Asp Thr Leu Ser 135 140 Ala Ala Ser Arg Pro Gly Asp Thr Asn Leu Ala Asn Tyr Lys Gly Arg 150 155 Cys Val Lys Ile Gln Lys Leu Val Asn His His Ala Phe Thr Leu Val 165 170 Thr Leu Gln Tyr Val Ser Asp Asp Cys Tyr Thr Asn Gln Thr Asn Leu 185 Thr Arg Lys Ala Arg Glu Thr Ile Ser Leu Lys Glu Lys Asp Lys Leu 200 Asp Asp Thr Ser Thr Asp Gly Glu Asp Thr Leu Ile Thr Ile Lys Gly 215 220 Phe Leu Asn Ile Val Ser Leu Ile Gln Arg Val Glu Ser Gly Thr Glu 230 235 Lys Ile Ala Leu Asn Cys Leu Leu Leu Ile Val Thr Gly Phe Arg 250 245 Ser Val Glu Ala Phe Asn Leu Arg Gln Asp Ala Leu Val Lys Arg His 265 260 Ile Asp Asn Ser Asp Leu Ser Lys Arg Leu Arg Asn Lys Gly Leu Pro 280 275 285 Asp Tyr Phe Leu Gly Ile Arg Tyr Val Gly Val Lys Gly Ala Gly Glu 295 300 Arg Thr His Trp Val Glu Pro Leu Ala Val Pro Leu Val Glu Asn Ile 310 315 Phe Lys Ser Val Lys Leu Leu Thr Ala Glu Phe Arg Lys His Ile Glu 325 330 Tyr Leu Arg Ser Lys Lys Phe Ser Asp Tyr Leu Pro Lys Pro Ile Ser 340 345 Asp Ile Thr Gly Glu Leu Val Glu Leu Asp Asp Ile Val Lys Tyr Met 360 Val Gln Ser Ser Glu Leu Arg Gly Arg Ala Gly Leu Arg Asp Lys 375 380 Ala Ser Lys Ala Leu Glu Lys Arg Gly Phe Ile Pro Ala Lys Val Ile 390 Leu Lys Ser Gly Asn Glu Lys Glu Lys Tyr Phe Thr Lys Ser Asp Leu 410 Ser Asn Phe Leu Lys Ser Glu Phe Gly Asp Asn Ser Ala Asn Thr Pro 425 Cys Thr His Ala Trp Ala Glu Asn Gly Lys Arg Tyr Glu Ile Lys Tyr 440 445 Glu Glu Leu Phe Leu Phe Pro Lys Gly Ser Leu Thr Leu Lys Arg 455 Val Leu Gln Leu Lys Ala Thr Pro Leu Pro Leu Asn Asn Asn Gly Leu 470 475 Asn Lys Phe Leu Gly Asn Val Ala Gly Tyr Val Ser Val Phe Ser Lys 490 485 Tyr Ser Leu Leu Glu Asp Asp Gly Arg Pro Thr Gln Leu Arg Thr His 505 Ile Pro Arg His Asn Ile Asn Thr Phe Leu Ala Ile Ala Glu Ile Ser 520 525 Asp His Leu Gln Ala Met Leu Met Gly Arg Val Asp Ile Thr Gln Asn 535 540 Gln His Tyr Gln His Leu Ala Leu Lys Glu Arg Arg Lys Ala Ala Ser 550 555 Leu Thr Pro Leu Val Pro Thr Val Pro Glu Gln Ser Ala Phe Thr Ala 570 565 Val Asp Val Asp Ser Pro Leu Asp Met Val Lys Gln Ser Gly Leu Met 585 Thr Phe Asn Ser Ser Gln Ser Leu Glu Thr Asn Ile Lys Ala Asn Leu 600

```
His Thr Phe Asp Asp Arg Tyr Asp Val Ala Gly Phe Ile Glu Ala Ser
                        615
                                            620
Ser Gly Asp Gly Leu Phe Glu Asp Ile Ala Ala Phe Glu Glu Ile
                                        635
                    630
Ser Lys Asn Glu Gly Pro Leu Gln Ala Ser Glu Met Val Gln Arg His
                645
                                    650
Ala Val Leu His Pro Leu Lys Leu Gly Ser Cys Met Arg Asp Val Asn
                                665
Leu Trp Gly Cys Pro Tyr Arg Met Lys Cys Gln Ala Leu Lys Pro Cys
        675
                            680
Glu His Phe Thr Leu Thr Gly Arg Ile Asp Glu Tyr Ser Thr Ile Ala
                        695
                                            700
Val Lys Gly Arg Ala Leu Asn Glu Ala Ser Leu Ala Phe Glu Gln Tyr
                    710
                                        715
Ile Ala Ala Leu Pro Asp Asn Gln Leu Ile Gln Gly Asn Ile Glu Glu
                                    730
Asn Leu Thr His Leu Asp Ala Leu Ser Asp Gln Leu Arg Arg Arg Ser
                                745
Asn Leu Leu Gln Val Leu Ser Ala Gln Glu Ile Leu Ser Gly Glu Ile
        755
                            760
Lys Val Glu Gly Glu Ile Arg Thr Leu Ala Gln Leu Phe Ala Leu Glu
                        775
His His Lys Asn Lys Glu Glu Glu Asn
        . 790
<210> 6232
<211> 93
<212> PRT
<213> Enterobacter cloacae
<400> 6232
Arg Phe Thr Val Gly Asn Asn Asp Val Leu Glu Val Gly Val Ala Glu
                                    10
Gln Leu Glu Phe Phe Pro Val Gln Ser Pro Cys Arg Gly Ile Cys Gln
                                25
Val Asp Glu Arg Gly Tyr Cys Arg Gly Cys Met Arg Thr Arg Asp Glu
                            40
Arg Phe Asn Trp Gln Asn Phe Ser Asp Ala Gln Lys Gln Glu Val Leu
                        55
Arg Leu Cys Arg Gln Arg Leu Leu Arg Lys Ile Arg Ala Asn Lys Ala
                    70
Val Glu Pro Glu Glu Pro Gln Gln Pro Ser Leu Phe
<210> 6233
<211> 307
<212> PRT
<213> Enterobacter cloacae
<400> 6233
His Tyr Phe Leu Glu Glu Asn Val Met Val Gln Arg Ile Thr Leu Ala
Pro Gln Gly Pro Glu Phe Ser Arg Phe Val Met Gly Tyr Trp Arg Leu
                                25
Met Asp Trp Asn Met Ser Pro Val Gln Leu Ala Asp Phe Ile Glu Glu
                            40
His Leu Asp Leu Gly Ile Thr Thr Val Asp His Ala Asp Ile Tyr Gly
                        55
Gly Tyr Gln Cys Glu Ala Ala Phe Gly Glu Ala Leu Lys Arg Ala Pro
```

75

Gly Leu Arg Glu Arg Met Glu Ile Val Thr Lys Cys Gly Ile Ala Thr

```
90
                85
Thr Ala Lys Pro Glu His Ala Leu Gly His Tyr Ile Thr Asp Ser Ala
                                105
His Ile Val Lys Ser Ala Glu Gln Ser Leu Val Asn Leu Ala Thr Asp
                            120
Arg Ile Asp Leu Leu Ile His Arg Pro Asp Pro Leu Met Asp Ala
                                             140
                        135
Asp Glu Val Ala Glu Ala Phe Leu Thr Leu His Gln Ser Gly Lys Val
                    150
                                         155
Arg His Phe Gly Val Ser Asn Phe Thr Pro Ala Gln Phe Ala Leu Leu
                165
                                     170
Gln Ser Arg Leu Pro Phe Thr Leu Ala Thr Asn Gln Val Glu Ile Ser
            180
                                 185
Pro Val His Gln Pro Leu Leu Asp Gly Thr Leu Asp Gln Leu Gln
                             200
Gln Leu Arg Ile Arg Pro Met Ala Trp Ser Cys Leu Gly Gly Gly Arg
                        215
                                             220
Leu Phe Asn Asp Glu Ala Phe Gln Pro Leu Arg Asn Glu Leu Glu Thr
                    230
                                         235
Val Ala Arg Glu Leu Asn Ala Glu Ser Ile Glu Gln Val Val Tyr Ala
                                     250
Trp Ile Leu Arg Leu Pro Ser Lys Pro Leu Pro Ile Ile Gly Ser Gly
                                 265
                                                     270
Lys Ile Glu Arg Val Arg Ala Ala Leu Val Ala Glu Glu Leu Asp Met
                             280
Thr Arg Gln Gln Trp Phe Arg Ile Arg Lys Ala Ala Leu Gly Tyr Asp
                        295
Val Pro
305
<210> 6234
<211> 191
. <212> PRT
<213> Enterobacter cloacae
<400> 6234
Gly His Met Lys Arg Phe Ala Leu Ala Met Val Thr Leu Val Val Cys
            20
```

Asn Leu Arg Leu Trp Tyr Arg Leu Lys Val Gln Lys Ile Thr Arg Gly Ala Gly Ala Gln Ala Ala Ser Glu Asp Val Glu Met Asn Leu Val Thr 40 Ser Gln Gly Val Gly Gln Ser Ile Gly Thr Val Lys Ile Thr Glu Thr 60 55 Asp Lys Gly Leu Glu Phe Ala Pro Asp Leu Lys Ala Leu Pro Pro Gly 70 75 Glu His Gly Phe His Val His Ala Lys Gly Ser Cys Gln Pro Ala Met 90 8.5 Lys Glu Gly Lys Pro Thr Ala Ala Glu Ala Ala Gly Gly His Leu Asp 105 110 100 Pro Gln Asn Ser Gly Lys His Glu Gly Pro Glu Gly Met Gly His Leu 120 125 Gly Asp Leu Pro Val Leu Val Val Asn Asn Asp Gly Lys Ala Thr Asp 135 140 Pro Val Val Ala Pro Arg Leu Lys Lys Leu Asp Glu Val Lys Gly Lys 155 150 Ala Leu Met Ile His Val Gly Gly Asp Asn Met Ser Asp Gln Pro Lys 170 Pro Leu Gly Gly Gly Ala Arg Tyr Ala Cys Gly Val Ile 185

<210> 6235

```
<211> 94
<212> PRT
<213> Enterobacter cloacae
<400> 6235
Asn Leu Pro Leu Trp Pro Ser Phe His Arg Lys Gly Ser Leu Leu Val
                                    10
Thr Leu Phe Ser Phe Ser Ala Gly Leu Pro Leu Gln Asp Leu Ile Val
                                25
Gly Ala Ser Val Tyr Phe Pro Pro Leu Phe Lys Ala Val Met Val Gly
                            40
Phe Val Ile Trp Leu Ile Ala His Arg Leu Leu Arg Asp Trp Met Tyr
Ser Gly Glu Ile Trp His Pro Met Leu Met Asp Leu Ser Leu Phe Thr
Leu Ser Val Cys Leu Gly Leu Ala Val Leu Thr Val Trp
<210> 6236
<211> 700
<212> PRT
<213> Enterobacter cloacae
<400> 6236
Ser Thr Ala Glu Arg His Tyr Pro Gly Leu Trp His Asn Leu His Cys
Arg His Arg Ile Ala Met Met Asn Leu Gly Ala Leu Ser Trp Arg Asn
                                25
Thr Pro Trp Ile Lys Ala Thr Arg Pro Gln Trp Arg Tyr Ala Leu Arg
                            40
                                                45
Asn Gly Ile Ala Met Cys Leu Ala Leu Thr Val Ala Tyr Tyr Leu Asn
                        55
Leu Asp Glu Pro Tyr Trp Ala Met Thr Ser Ala Ala Val Val Ser Phe
                                        75
                    70
Pro Thr Val Gly Gly Val Ile Ser Lys Ser Leu Gly Arg Val Ala Gly
                8.5
                                    90
Ser Leu Leu Gly Ala Thr Ala Ala Leu Leu Leu Ala Gly His Thr Leu
                               105
Asn Asp Pro Trp Leu Phe Leu Leu Ser Met Ser Ala Trp Leu Gly Leu
                            120
                                                125
Cys Thr Trp Ala Cys Ala His Phe Thr Asn Asn Val Ala Tyr Ala Phe
                       135
Gln Leu Ala Gly Tyr Thr Ala Ala Ile Ile Ala Phe Pro Val Val Asn
                                        155
Val Leu Asp Thr Thr Glu Leu Trp Asp Ile Ala Gln Ala Arg Val Cys
                                    170
Glu Val Met Val Gly Ile Leu Cys Gly Gly Val Met Met Ile Leu
                                185
Pro Ser Thr Ser Asp Gly Thr Thr Leu Ile Thr Ala Leu Lys Thr Met
                            200
His Ala Arg Leu Leu Glu His Ala Ser Leu Leu Trp Gln Pro Asp Ser
                        215
                                            220
Ser Asp Asp Ile Arg Leu Ala His Glu Lys Val Ile Gly Gln Ile Leu
                                        235
                    230
Thr Met Asn Leu Leu Arg Ile Gln Ala Phe Trp Ser His Tyr Arg Phe
                245
                                    250
Arg Arg Gln Asn Thr Leu Leu Asn Tyr Leu Leu His Gln Gln Leu Arg
                               265
Met Thr Ser Ala Ile Ser Ser Leu Arg Arg Met Leu Leu Asn Trp Pro
```

280

Thr Pro Pro Ala His Thr Arg Glu Ile Ile Glu Ala Leu Leu Ala Thr 295 Leu Ala Arg Ser Asp Ala Asp Ile Tyr Thr Val Ala Arg Ile Ile Ala 310 315 Pro Leu Ala Pro Ala Asp Glu Tyr Asp Tyr Arg His Arg Ala Phe Trp 325 330 Gln Arg Leu Asn Tyr Phe Cys Arg Leu Tyr Leu Arg Ser Ser Arg Trp 345 Leu Lys Ala Val Glu Asn Ala Thr Pro Val Thr Glu Phe Ser Val Pro 360 Gly Ser Pro Ala Leu Ala Arg His Thr Asp Ala Met Glu Ala Leu Trp 375 370 Ser Gly Phe Arg Thr Phe Cys Ala Leu Thr Ala Val Gly Ala Trp Ala 395 390 Ile Thr Thr Gln Trp Asp Ala Gly Ser Ala Ala Leu Thr Leu Ala Ala 405 410 Ile Ser Cys Val Leu Tyr Ser Val Ala Ala Ser Pro Phe Asn Ser Leu 420 425 Thr Leu Leu Arg Thr Leu Val Leu Ser Leu Phe Ser Phe Val 440 Val Lys Phe Gly Leu Met Val Gln Ile Thr Asp Leu Trp Gln Phe Leu Leu Phe Leu Phe Pro Leu Leu Thr Thr Met Gln Leu Lys Leu Gln 470 475 Met Pro Lys Leu Ala Gly Leu Trp Gly Gln Leu Ile Val Phe Met Gly 485 490 Ser Phe Ile Ser Val Thr Asn Pro Pro Val Tyr Asp Tyr Ala Asp Phe 505 Leu Asn Asp Asn Leu Ala Lys Ile Leu Gly Val Gly Leu Ala Trp Leu 520 Ala Phe Ala Val Leu Arg Pro Gly Ser Asp Ala Arg Lys Ser Arg Arg 535 540 His Ile Arg Glu Leu Arg Arg Gly Phe Val Asp Gln Leu Ser Arg Arg 550 555 Pro His Leu Arg Glu Ser Glu Tyr Glu Ser Leu Val Tyr His His Val 565 570 Ser Gln Leu Asn Asn Ser Gln Asp Ser Leu Ser Arg Arg Trp Leu Leu 580 585 590 Arg Trp Gly Val Val Leu Leu Asn Cys Ser His Val Val Trp Gln Leu 595 600 Arg Ala Trp Glu Thr Arg Ser Asp Pro Leu Ser Gln Val Arg Asp Asn 615 620 Cys Ile Ser Met Leu Arg Asp Val Met Ser Glu Arg Gly Val Gln Gln 635 630 Arg Pro Leu Ser Val Thr Leu Ala Glu Leu Gln Arg Ile Cys Asp Thr 645 650 Leu Ala His His Gln Pro Ala Ala Arg Asp Leu Ala Ser Ile Ile 660 665 670 Trp Arg Leu His Cys Ser Leu Ser Gln Leu Glu Gln Ala Pro Pro Pro 680 Gly Thr Ile Gly Asp Gln Ile Thr Pro Gln Ala 695 <210> 6237 <211> 315 <212> PRT

<400> 6237

<213> Enterobacter cloacae

Asn Leu Ala Pro Asp Val Asn Gly Ser Leu Pro Val Tyr Pro Leu Arg
1 5 10 15

```
Leu Ser Trp Pro Cys Arg Val Asn Arg Val Val Arg Ile Ala Leu Lys
                                25
Thr Leu Lys Tyr Phe Ser Thr Leu Phe Val Leu Ala Leu Ala Leu Ile
                            40
Ala Gly Trp Trp Leu Trp Asn Tyr Tyr Met Gln Ser Pro Trp Thr Arg
                        55
Asp Gly Lys Ile Arg Ala Glu Gln Val Ser Ile Thr Pro Gln Val Ser
                    70
                                         75
Gly Ser Ile Ser Ala Leu Leu Val Lys Asp Asn Gln Ser Val His Ala
                85
                                 , 90
Gly Asp Val Leu Phe Arg Ile Asp Glu Thr Pro Phe His Ile Ala Val
            100
                                105
Leu Asn Ala Gln Ala Gln Leu Ala Lys Ala Gln Ser Asp Leu Ala Lys
                            120
Ala Asn Asn Glu Ala Glu Arg Arg Arg His Leu Ser Arg Asn Tyr Ile
                        135
                                            140
Ser Ala Glu Asp Leu Asp Thr Ala Asn Ile Asn Val Lys Ala Met Gln
                    150
                                         155
Ala Ser Leu Lys Val Ala Glu Ala Thr Leu Lys Gln Ala Glu Trp Gln
                165
                                    170
Leu Thr Gln Thr Val Val Lys Ala Pro Val Asp Gly Trp Ile Thr Ser
            180
                                185
Leu Ser Thr Arg Val Gly Asp Tyr Ala Thr Thr Gly Gln Pro Val Phe
                            200
Ala Leu Val Asp Ser Arg Ser Phe Tyr Val Val Gly Tyr Phe Glu Glu
                        215
                                            220
Thr Lys Leu Arg His Ile Arg Glu Gly Ala Pro Ala Arg Ile Thr Leu
                    230
                                         235
Tyr Ser Gly Ala Glu Thr Leu Gln Gly His Val Ser Ser Ile Gly Arg
                245
                                     250
Ala Ile Tyr Asp Gln Ser Val Glu Thr Asp Ser Gly Leu Val Pro Asp
            260
                                265
Ile Lys Pro Asn Val Pro Trp Val Arg Leu Ala Gln Arg Val Pro Val
                            280
Arg Val Glu Phe Asp Gln Leu Pro Lys Asp Ile Thr Leu Val Ser Gly
                        295
                                             300
Thr Thr Cys Thr Val Ala Ile Gly Ser Arg
                    310
<210> 6238
<211> 400
<212> PRT
<213> Enterobacter cloacae
<400> 6238
Asn Gln Cys Ile Pro Val Ser Arg Met Lys Asn Gln Ser Val Ile Arg
                                    10
Gln Phe Ser Glu Ser Glu Leu His Gln Gln Leu Glu Thr Phe Gly Asn
                                25
His Asp Lys Gln Leu Ser Arg Leu Ile Arg Tyr Phe Ser His Leu Arg
                            40
```

```
Ala Trp Tyr Met Leu Glu Ala Leu Lys Gln Ser Glu Ala Arg Lys Arg
                        135
Lys Thr Thr Lys Gln Ala Thr Pro Phe Leu Ile Gly Asp Leu Lys Ala
                    150
                                        155
Leu Ile Lys Leu Arg Ser Thr Thr Asn Ser Val Arg Lys Leu Arg Asp
                165
                                    170
Leu Cys Leu Ile Trp Thr Gly Phe Glu Thr Leu Leu Arg Ser Ser Glu
                                185
Ile Arg Arg Ile Arg Leu Lys Asp Leu Ser Leu Asp Ser Met Thr Gly
                            200
Glu Phe Asn Leu Thr Val Tyr Arg Thr Lys Thr Asn Ile Ser Thr Leu
                        215
                                            220
Leu Thr Tyr Arg Leu Thr Arg Gln Leu Thr Asn Cys Leu Leu Arg Leu
                    230
                                        235
Met Asn Leu Val Lys Met Asp Gln His Ser His Pro Asp Glu Tyr Leu
                                    250
                245
Phe Gln Ala Val Asn Phe His Asp Thr Gly Tyr Met Pro Pro Gly Trp
                                265
Lys Leu Arg Ser Lys Gly Asn Glu Leu Ser Glu Leu Leu Lys Arg His
                            280
Asn Leu Pro Tyr Arq Ala Lys Gln Ser Leu Leu Asn Asp Glu Asp Glu
                        295
                                            300
Glu Asp Thr Val Asp Asp Ala Gly Met Leu Ser Lys Asn Ser Leu Leu
                    310
                                        315
Arg Ala Phe Lys Glu Met Trp Asn Glu Leu Tyr Pro Asn Glu Thr Lys
                                    330
                325
Thr Arg Tyr Trp Thr Gly His Ser Val Arg Val Gly Gly Ala Ile Gln
                                345
            340
Leu Asp Ile Glu Gly Tyr Ser Leu Pro Gln Ile Met Glu Met Gly Asn
                            360
Trp Ser Asn Glu Glu Met Val Met Arg Tyr Ile Arg Asn Ile Glu Ala
                        375
                                            380
Gly Lys Lys Ala Met Ile Lys Leu Met Arg Asn Ala Phe Asp Glu
                    390
                                        395
<210> 6239
<211> 344
<212> PRT
<213> Enterobacter cloacae
<400> 6239
His Leu Cys Ser Ala Arg Ser Ala Trp Ala Ala Lys Leu Ile Gly Asn
                                    10
1
Asn Met Ser Leu Glu Lys Arg Met Ser Tyr Asp Asp Leu Pro Tyr Phe
                                25
Arg Asp Gln Ile Leu Glu Arg Ile Asp Ser Leu Lys Cys Phe Phe Ser
                            40
                                                 45
Asn Thr Pro Pro Met Met Ala Asn Leu Met Thr Val Ser Thr Val Ser
                        55
Arg Thr Glu Glu Arg Leu Lys Gln Val Lys Pro Ile Arg Val Ser Ile
                    70
                                        75
Lys Asp Asp Ala Ser Val Glu Glu Ile Ile Gln Ala Leu Thr Asp Ile
                85
                                    90
Cys Val Asp Asp Ile Glu Ser Leu Ser His Asp Ser Thr Lys Val Thr
                                105
                                                    110
Thr Lys Tyr Pro Gly Leu Ile Ile Val Pro Glu Arg Ala Asp Leu Leu
                            120
Glu Ser Leu Ile Thr Ser Ile Asn Glu Ala Lys Asn Asp Phe Ala Ala
                       135
                                            140
```

Ala Met Arg Arg Ile Asp Asn Lys Lys Asn Val Arg Phe Asp Lys Val

```
His Lys Lys Leu Pro Gly Leu Val Ala Met His Ser Thr Arg Asn Ile
                                    170
                165
Leu Phe Ile Lys Ser Gln Leu Lys Lys Val Thr Phe Ser Trp Arg Leu
            180
                                185
Asn Arg Asn Gln Glu Val Lys Thr Ala Glu Gln Leu Val Ser Leu Leu
                            200
Glu Arg Arg Arg Ala Ser Glu Val Lys Asn Val Ala Thr Thr Asn Leu
                        215
                                            220
Asn Val Val Ser Asn Ile Asp Lys Ala Leu His Arg Leu Glu Phe His
                    230
                                        235
Pro Leu Lys Gln Gly Glu Ser Tyr Arg Leu Cys Arg Thr Asn Ser Phe
                                    250
                245
Pro Val Pro Ile Ala His Ile Phe Ala Phe Arg Pro Glu Gly Gln Glu
                                                     270
                                265
            260
Arg Asn Gly Asn Lys Tyr Ala Glu Thr Asp Tyr Ser Val Val Lys Ala
        275
                            280
Ser Leu Pro Ile Phe Ala Ala Gly Asn Ile Pro Gln Leu Lys Thr Leu
                        295
                                            300
Ser Asp Trp Ala Pro Glu Asn Ser Gln Gly Pro Ser Asn Gln Arg Lys
                    310
                                        315
Leu Ser Leu Lys Tyr Thr Glu Leu Val Pro Gly Ala Glu Leu Gly Ile
                325
                                    330
Phe Ile Val Ser Pro Glu Asn
            340
<210> 6240
<211> 202
<212> PRT
<213> Enterobacter cloacae
<400> 6240
Phe Ser Gln Ile Glu Lys Met Gly Arg Arg Phe Asn Phe Asn Ser Ser
                                    10
Ala Ser Arg Tyr Ser Leu Asn Pro Leu Gly Tyr Ala Gly Ile Gly Ala
Asp Gly Ala Phe Asn Thr Ala Ile Ser Phe Thr Thr Asn Thr Asn Trp
                            40
Gln Trp Tyr Ser Gly Glu Ala Ala Met Ser Asn Leu Ser Gln Met Leu
Ala Leu Thr Ile His Asn Phe Leu Ser Ala Ala Thr Gly Ile Ala Leu
Ala Phe Ala Leu Phe Arg Gly Phe Ala Arg Arg Glu Ala Thr Gly Ile
Gly Asn Phe Trp Ala Asp Val Thr Arg Val Thr Leu Tyr Val Leu Leu
                                105
            100
Pro Ile Ser Val Val Tyr Gly Val Phe Leu Ile Ala Ser Gly Val Pro
                            120
Gln Thr Leu Ala Ala Ser Val Asp Val Ser Thr Leu Glu Gly Val Arg
                       135
                                            140
Gln Thr Leu Gly Leu Gly Pro Val Ala Ser Gln Glu Ala Ile Lys Met
                                        155
                    150
Leu Gly Thr Asn Gly Gly Gly Phe Phe Asn Ala Asn Ser Ala His Pro
                                   170
               165
Phe Glu Asn Pro Asp Ala Leu Thr Asn Phe Ile Glu Leu Leu Val Phe
           180
                                185
Thr Thr Asp Ser Arg Ile Arg Thr Ser Gly
                            200
<210> 6241
<211> 101
<212> PRT
```

```
<213> Enterobacter cloacae
<400> 6241
Ile Leu Ile Cys Ala Leu Ile Val Ser Val Leu Leu Leu Ile Pro Leu
                                    10
Ala Met Val Leu Ser Pro Trp Leu Leu Gly Val Leu Arg Phe Leu Leu
            20
                                25
Gly Ala Ala Asp Gly Ala Leu Leu Pro Ala Val Leu Thr Leu Leu Val
                            40
Phe Phe Ser Ser Phe Leu Ile Ala Gly Arg Phe Phe Cys Phe Phe Gln
                        55
Ser Phe Arg Asp Leu Gly Ile Val Ser Gly Pro Leu Val Gly Ala Gly
                    70
Ile Ser Ala Cys Phe Gly Phe Arg Ala Val Phe Ile Val Thr Ala Gly
                                     90
Val Val Leu Phe Asn
            100
<210> 6242
<211> 146
<212> PRT
<213> Enterobacter cloacae
<400> 6242
```

Trp Pro Ser Met Pro Asp Ser Ser Gly Cys Gly Met Pro Tyr Trp Lys 10 Arg Gly Leu Thr Met Ile Val Lys Phe His Pro Arg Gly Arg Gly Gly 20 25 Gly Ala Gly Pro Val Asp Tyr Leu Leu Gly Lys Asp Arg Gln Arg Asp 40 45 Gly Ala Ser Val Leu Gln Gly Lys Pro Glu Glu Val Arg Glu Leu Ile 5.5 Asp Ala Ser Pro Tyr Ala Lys Lys Tyr Thr Ser Gly Val Leu Ser Phe 70 75 Ala Glu Gln Asp Leu Pro Pro Gly Gln Arg Leu Lys Arg Leu Met Ala 85 90 Ser Phe Gln Arg Val Leu Met Pro Gly Leu Asp Lys Asp His Tyr Thr 100 105 110 Val Leu Trp Val Glu His Arg Asp Lys Gly Pro Ala Gly Ala Glu Leu 120 125 115

Pro Asp Pro Lys Pro Arg Asn Cys Leu Thr Ala Asn Gly Pro Thr Ile 135

Leu 145

<210> 6243 <211> 144

<212> PRT

<213> Enterobacter cloacae

<400> 6243

Met Pro Leu Thr Arg Leu Arg Leu Ala Gln His Arg Ala Asp Arg Glu Lys Ile Ser Arg Pro Ser Arg Arg Tyr Gln Glu Ala Gly Leu Ala Asp 25 Lys Arg Ser Lys Met Leu Thr Met Trp Val Thr Glu Asp Glu His Arg 40 Arg Leu Leu Glu Arg Cys Asp Gly Lys Gln Leu Ala Ala Trp Met Arg 55 Gln Thr Cys Leu Asp Glu Lys Pro Ala Arg Ala Gly Lys Leu Pro Ser 70 75

 Ile
 Ser
 Pro
 Ala
 Leu
 Leu
 Arg
 Gln
 Leu
 Ala
 Gly
 Met
 Gly
 Asn
 Asn
 Leu
 Asn
 Leu
 90
 95
 Ser
 Gly
 Leu
 Asp
 Asn
 Ala
 Gly
 Gly
 Ser
 Ser
 Gly
 Leu
 Asp
 Asp
 Asp
 Leu
 Asp
 Ala
 Ile
 Asp
 Ala
 Gly
 Leu
 Glu
 Leu
 Asp
 Asp
 Asp
 Asp
 Arg
 Arg
 Arg
 His
 Ala
 Val
 Leu
 Glu
 Lys
 Gly
 Ala
 Asp
 Asp
 Asp
 Arg
 <210> 6244 <211> 331

<212> PRT

<213> Enterobacter cloacae

<400> 6244 Ala Arg Thr Arg Arg Phe Val Met Val His Arg Ser Met Leu Met Ser Lys Lys Glu Gln Thr Leu Met Thr Pro Tyr Leu Gln Phe Asn Arg Ser 20 25 Gln Trp Ala Ala Leu Arg Asp Ser Val Pro Met Thr Leu Thr Glu Gly 40 45 Glu Ile Ala Arg Leu Lys Gly Ile Asn Glu Asp Leu Ser Leu Glu Glu 5.5 Val Ala Glu Ile Tyr Leu Pro Leu Ser Arg Leu Leu Asn Phe Tyr Ile 70 75 Ser Ser Asn Leu Arg Arg Gln Ala Val Leu Glu Gln Phe Leu Gly Thr 85 90 Asn Gly Gln Arg Ile Pro Tyr Ile Ile Ser Ile Ala Gly Ser Val Ala 100 105 Val Gly Lys Ser Thr Thr Ala Arg Val Leu Gln Ala Leu Leu Ser Arg 115 120 125 Trp Pro Glu His Arg Ser Val Glu Leu Ile Thr Thr Asp Gly Phe Leu 135 140 His Pro Asn Glu Val Leu Lys Glu Arg Gly Leu Met Lys Lys Lys Gly · 150 155 Phe Pro Leu Ser Tyr Asp Met His Arg Leu Val Lys Phe Val Ser Asp 165 170 Leu Lys Ser Gly Val Pro His Val Thr Ala Pro Val Tyr Ser His Leu 180 185 190 Ile Tyr Asp Arg Ile Pro Asp Gly Asp Lys Thr Val Val Gln Pro Asp 200 Ile Leu Ile Leu Glu Gly Leu Asn Val Leu Gln Ser Gly Met Asp Tyr 215 220

Pro His Asp Pro His His Val Phe Val Ser Asp Phe Val Asp Phe Ser

Ile Tyr Val Asp Ala Pro Glu Asp Leu Leu Gln Arg Trp Tyr Ile Asn

235

250

290 295 300

Leu Pro Thr Arg Glu Arg Ala Ser Leu Ile Leu Thr Lys Ser Glu Lys
305 310 315 320

His Ala Val Asp Gln Ile Arg Leu Arg Lys 325 330

<sup>&</sup>lt;210> 6245

<sup>&</sup>lt;211> 395

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

<400> 6245 Ile Ile Ser Arg Val Phe Ser Leu Ser Leu Trp Glu Arg Ala Gly Val 10 Trp Gly Val His Ala Pro Pro His Pro Asn Pro Leu Pro Gln Gly Glu 25 Gly Ile Tyr Ile Cys Glu Gln Tyr Arg Arg His Ala Thr Glu Cys Ala 40 Ser Ser Glu Arg Ile Arg Val Met Leu Gln Phe Ile Leu Arg Arg Leu 55 Gly Leu Val Ile Pro Thr Phe Ile Gly Ile Thr Leu Leu Thr Phe Ala 75 Phe Val His Met Ile Pro Gly Asp Pro Val Met Ile Met Ala Gly Glu 8.5 90 Arg Gly Ile Ser Pro Glu Arg His Ala Gln Leu Leu Ala Glu Leu Gly 105 110 Leu Asp Lys Pro Met Trp Gln Gln Tyr Leu His Tyr Ile Trp Gly Val 120 125 115 Leu His Gly Asp Leu Gly Ile Ser Leu Lys Ser Arg Leu Pro Val Trp 135 140 Asp Glu Phe Val Pro Arg Phe Lys Ala Thr Leu Glu Leu Gly Ile Cys 150 155 160 Ala Met Ile Phe Ala Thr Ala Val Gly Ile Pro Val Gly Val Leu Ala 165 170 Ala Val Lys Arg Gly Ser Ile Phe Asp His Thr Ala Val Gly Leu Ala 180 185 190 Leu Thr Gly Tyr Ser Met Pro Ile Phe Trp Trp Gly Met Met Leu Ile 195 200 205 Met Leu Val Ser Val Gln Trp Asn Leu Thr Pro Val Ser Gly Arg Val 215 220 Ser Asp Met Val Phe Leu Asp Asp Thr Asn Pro Leu Thr Gly Phe Met 230 235 Leu Ile Asp Thr Ala Ile Trp Gly Glu Glu Gly Asn Phe Ile Asp Ala 245 250 Val Ala His Met Ile Leu Pro Ala Met Val Leu Gly Thr Ile Pro Leu 265 270 260 Ala Val Ile Val Arq Met Thr Arq Ser Ser Met Leu Glu Val Leu Gly 280 Glu Asp Tyr Ile Arg Thr Ala Arg Ala Lys Gly Leu Thr Arg Met Arg 295 300 Val Ile Ile His Ala Leu Arg Asn Ala Met Leu Pro Val Val Thr 310 315 Val Ile Gly Leu Gln Val Gly Thr Leu Leu Ala Gly Ala Ile Leu Thr 330 Glu Thr Ile Phe Ser Trp Pro Gly Leu Gly Arg Trp Leu Ile Asp Ala 345 340 Leu Gln Arg Arg Asp Tyr Pro Val Val Gln Gly Gly Val Leu Leu Val 355 360 365 Ala Thr Met Ile Ile Leu Val Asn Leu Leu Val Asp Leu Leu Tyr Gly 380 375 Val Val Asn Pro Arg Ile Arg His Lys Lys 390 395

<210> 6246

<211> 304

<212> PRT

<213> Enterobacter cloacae

<400> 6246

Gly Ala Ile Met Ser Gln Val Thr Gln Asn Lys Val Val Thr Ala Pro

```
10
Val Pro Met Thr Pro Met Gln Glu Phe Trp His Tyr Phe Lys Arg Asn
                                25
Lys Gly Ala Val Val Gly Leu Val Tyr Val Ser Ile Met Ile Leu Ile
                            40
                                                 45
Ala Val Phe Ala Asn Val Leu Ala Pro Tyr Asn Pro Ala Asp Gln Phe
                        55
Arg Asp Ala Leu Leu Ala Pro Pro Ala Trp Gln Asp Gly Gly Ser Leu
                    70
                                        75
Ala His Leu Leu Gly Thr Asp Asp Val Gly Arg Asp Val Leu Ser Arg
                                     90
                8.5
Leu Met Tyr Gly Ala Arg Leu Ser Leu Leu Val Gly Cys Leu Val Val
                                105
Val Leu Ser Leu Ile Met Gly Ile Val Leu Gly Leu Val Ala Gly Tyr
                            120
                                                 125
Phe Gly Gly Ile Val Asp Asn Ile Ile Met Arg Val Val Asp Ile Met
                        135
                                             140
Leu Ala Leu Pro Ser Leu Leu Leu Ala Leu Val Leu Val Ala Ile Phe
                    150
                                         155
Gly Pro Ser Ile Gly Asn Ala Ala Leu Ala Leu Thr Phe Val Ala Leu
                165
                                     170
Pro His Tyr Val Arg Leu Thr Arg Ala Ala Val Leu Val Glu Val Asn
            180
                                185
                                                     190
Arg Asp Tyr Val Thr Ala Ser Arg Val Ala Gly Ala Gly Ala Met Arg
                            200
                                                 205
        195
Gln Met Phe Ile Ser Ile Phe Pro Asn Cys Leu Ala Pro Leu Ile Val
                        215
                                             220
Gln Ala Ser Leu Gly Phe Ser Asn Ala Ile Leu Asp Met Ala Ala Leu
                    230
                                         235
Gly Phe Leu Gly Met Gly Ala Gln Pro Pro Thr Pro Glu Trp Gly Thr
                                     250
                245
Met Leu Ser Asp Val Leu Gln Phe Ala Gln Ser Ala Trp Trp Val Val
            260
                                265
                                                     270
Thr Phe Pro Gly Leu Ala Ile Leu Leu Thr Val Leu Ala Phe Asn Leu
                            280
Met Gly Asp Gly Leu Arg Asp Ala Leu Asp Pro Lys Leu Lys Gln
                        295
                                             300
```

<210> 6247

<211> 344

<212> PRT

<213> Enterobacter cloacae

## <400> 6247

Cys Arg Glu Ala Asn Thr Met Ser Thr His Gln Ala Thr Thr Gln Gln Pro Leu Leu Gln Ala Ile Asp Leu Lys Lys His Tyr Pro Val Lys Lys Gly Ile Phe Ala Pro Glu Arg Leu Val Lys Ala Leu Asp Gly Val Ser 40 Phe Ser Leu Glu Arg Gly Lys Thr Leu Ala Val Val Gly Glu Ser Gly 55 60 Cys Gly Lys Ser Thr Leu Gly Arg Leu Leu Thr Met Ile Glu Thr Pro 75 Thr Gly Gly Glu Leu Tyr Tyr Gln Gly Gln Asp Leu Leu Lys His Asp 90 85 Pro Gln Ala Gln Lys Leu Arg Arg Gln Lys Ile Gln Ile Val Phe Gln 105 110 Asn Pro Tyr Gly Ser Leu Asn Pro Arg Lys Val Gly Gln Ile Leu 120 Glu Glu Pro Leu Leu Ile Asn Ser Asn Leu Ser Lys Glu Gln Arg Arg

```
135
Glu Lys Ala Leu Ala Met Met Ala Lys Val Gly Leu Lys Thr Glu His
                    150
                                        155
Tyr Asp Arg Tyr Pro His Met Phe Ser Gly Gly Gln Arg Gln Arg Ile
                                    170
                165
Ala Ile Ala Arg Gly Leu Met Leu Asp Pro Asp Val Val Ile Ala Asp
                                185
Glu Pro Val Ser Ala Leu Asp Val Ser Val Arg Ala Gln Val Leu Asn
                            200
                                                205
Leu Met Met Asp Leu Gln Gln Asp Leu Gly Leu Ser Tyr Val Phe Ile
                                            220
                        215
Ser His Asp Leu Ser Val Val Glu His Ile Ala Asp Glu Val Met Val
                    230
                                        235
Met Tyr Leu Gly Arg Cys Val Glu Lys Gly Thr Lys Asp Gln Ile Phe
                                    250
                245
Thr Asn Pro Arg His Pro Tyr Thr Gln Ala Leu Leu Ser Ala Thr Pro
            260
                                265
                                                    270
Arg Leu Asn Pro Asp Asp Arg Glu Arg Ile Lys Leu Thr Gly Glu
                            280
Leu Pro Ser Pro Leu Asn Pro Pro Pro Gly Cys Ala Phe Asn Ala Arg
                        295
                                            300
Cys Arg Arg Arg Phe Gly Pro Cys Thr Gln Leu Gln Pro Gln Leu Lys
                    310
                                        315
Asp Tyr Gly Gln Leu Val Ala Cys Phe Ala Val Asp Gln Asp Glu
                325
                                    330
Asn Gly Glu Lys Pro His Ala
            340
<210> 6248
<211> 76
<212> PRT
<213> Enterobacter cloacae
<400> 6248
Gly Trp Cys Tyr Lys Pro Phe Glu Asp Leu Ile Gln Pro Ala Arg Ala
Thr Asp Asp His Asn Lys Arg Ile Glu Leu Tyr Lys Gln Ala Gln Val
                                25
Val Met His Asp Gln Ala Pro Ala Leu Ile Val Ala His Ser Thr Val
Tyr Glu Pro Val Arg Lys Glu Val Lys Gly Tyr Val Val Asp Pro Leu
                        55
Gly Lys His His Phe Glu Asn Val Ser Val Glu
<210> 6249
<211> 334
<212> PRT
<213> Enterobacter cloacae
<400> 6249
Ser Ser Lys Arg His Glu Met Ala Leu Leu Asn Val Asn Lys Leu Ser
                                    10
Val His Phe Gly Asp Glu Gly Thr Pro Phe Arg Ala Val Asp Arg Ile
                                25
Ser Tyr Ser Val Asn Gln Gly Glu Val Val Gly Ile Val Gly Glu Ser
                            40
Gly Ser Gly Lys Ser Val Ser Ser Leu Ala Ile Met Gly Leu Ile Asp
Tyr Pro Gly Arg Val Met Ala Glu Asn Leu Glu Phe Asn Gly Gln Asp
```

```
Leu Lys Arg Ile Ser Glu Lys Gln Arg Arg Gln Leu Val Gly Ala Glu
Val Ala Met Ile Phe Gln Asp Pro Met Thr Ser Leu Asn Pro Cys Tyr
                                105
Thr Val Gly Phe Gln Ile Met Glu Ala Ile Lys Val His Gln Gly Gly
                            120
Asn Lys Lys Thr Arg Arg Gln Arg Ala Ile Asp Leu Leu Asn Gln Val
                        135
                                            140
Gly Ile Pro Asp Pro Ala Ser Arg Leu Asp Val Tyr Pro His Gln Leu
                    150
                                        155
Ser Gly Gly Met Ser Gln Arg Val Met Ile Ala Met Ala Ile Ala Cys
                165
                                    170
Arg Pro Lys Leu Ieu Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp Val
            180
                                185
Thr Ile Gln Ala Gln Ile Ile Glu Leu Leu Glu Leu Gln Gln Lys
        195
                            200
Glu Asn Met Ala Leu Val Leu Ile Thr His Asp Leu Ala Leu Val Ala
                        215
Glu Ala Ala His Lys Ile Ile Val Met Tyr Ala Gly Gln Val Val Glu
                    230
                                        235
Thr Gly Ser Ser His Asp Ile Phe Arg Ala Pro Arg His Pro Tyr Thr
                245
                                    250
                                                        255
Gln Ala Leu Leu Arg Ala Leu Pro Glu Phe Ala Gln Asp Lys Ala Arg
                                265
                                                    270
Leu Ala Ser Leu Pro Gly Val Val Pro Gly Lys Tyr Asp Arg Pro Gln
                            280
Gly Cys Leu Leu Asn Pro Arg Cys Pro Tyr Ala Thr Asp Lys Cys Arg
                        295
                                            300
Ala Glu Glu Pro Glu Leu Asn Leu Leu Ala Asp Gly Arg Gln Ser Lys
                    310
                                        315
Cys His Tyr Pro Leu Asp Asp Ala Gly Arg Pro Thr Leu
                                    330 .
                325
```

```
<210> 6250
<211> 407
<212> PRT
```

<213> Enterobacter cloacae

<400> 6250

Gln Ser Ser Thr Ile Val Met Ser Phe Cys Thr Glu Val Val Met Lys -5 10 Asp Val Val Ile Val Gly Ala Leu Arg Thr Ala Ile Gly Cys Phe Gln 25 Gly Ala Leu Ala Arg His Ser Ala Val Asp Leu Gly Ser Val Val 40 Arg Ala Leu Val Glu Arg Ser Gly Ile Ala Ala His Glu Ile Asp Glu 55 Val Ile Leu Gly Gln Val Leu Thr Ala Gly Ala Gly Gln Asn Pro Ala 70 Arg Gln Ala Ala Leu Lys Gly Gly Leu Pro Asn Thr Val Ser Ala Ile Thr Ile Asn Asp Val Cys Gly Ser Gly Leu Lys Ala Leu His Leu Ala 105 Thr Gln Ala Ile Gln Cys Gly Glu Ala Asp Val Val Ile Ala Gly Gly 120 125 Gln Glu Asn Met Ser Arg Ala Pro His Val Leu Thr Asp Ser Arg Thr 135 140 Gly Ala Gln Leu Gly Asn Ser Gln Leu Leu Asp Ser Leu Val His Asp 150 155 Gly Leu Trp Asp Ala Phe Asn Asp Tyr His Met Gly Val Thr Ala Glu 165 170 175

```
Asn Leu Ala Arg Glu Tyr Gly Ile Ser Arg Glu Leu Gln Asp Ala Tyr
                                185
Ala Leu Ser Ser Gln Gln Lys Ala Arg Ala Ile Asp Ser Gly Arg
                            200
                                                205
Phe Arg Asp Glu Ile Val Pro Val Ser Thr Gln Arg Gln Asn Gly Glu
                        215
                                            220
Ala Leu Ile Val Asp Thr Asp Glu Gln Pro Arg Thr Asp Ala Ser Ala
                    230
                                        235
Glu Gly Leu Ala Lys Leu Asp Pro Ala Phe Glu Thr Leu Gly Ser Val
                245
                                    250
Thr Ala Gly Asn Ala Ser Ser Ile Asn Asp Gly Ala Ala Ala Val Met
            260
                                265
Met Met Ser Glu Ser Lys Ala Gln Glu Leu Ala Leu Pro Val Leu Ala
        275
                            280
Arg Ile Lys Ala Phe Ala Ser Val Gly Val Asp Pro Ala Leu Met Gly
                        295
                                            300
Ile Ala Pro Val Tyr Ala Thr Arg Arg Cys Leu Glu Arg Ala Gly Trp
                    310
                                        315
Glu Leu Ser Asp Val Asp Leu Ile Glu Val Asn Glu Ala Phe Ala Ala
                325
                                    330
Gln Ala Ile Ser Val Gly Lys Met Leu Glu Trp Asp Pro Leu Arg Val
                                345
Asn Val Asn Gly Gly Ala Ile Ala Leu Gly His Pro Ile Gly Ala Ser
                            360
Gly Cys Arg Ile Leu Val Ser Leu Val His Glu Met Lys Lys Arg Asn
                        375
Ala Arg Lys Gly Ile Ala Thr Leu Cys Ile Gly Gly Gln Gly Val
                    390
                                        395
Ala Leu Ala Ile Glu Arg
```

<210> 6251

<211> 239

<212> PRT

<213> Enterobacter cloacae

<400> 6251

Lys Arg Asn Val Ile Leu Ile Glu Gly Phe Phe Met Phe Lys Lys Ser 10 Leu Leu Ala Ser Leu Ile Ser Ala Ser Phe Ala Ala Ser Ala Val 25 Thr Val Asp Leu Arg His Glu Tyr Ile Asp Ser Gly Ser Asn Ala Asp 40 Arg Val Ala Val Ser His Arg Phe Asp Asn Gly Phe Gly Phe Ser Val 55 Glu Ala Lys Trp Lys Ser Gly Gly Asp Lys Ala Asp Gln Pro Phe Ala 70 75 Asp Val Val Gly Asn Gly His Glu Asp Gln Ile Ser Trp Arg Trp Lys 90 Ala Thr Asp Asn Ile Ala Leu Thr Pro Ala Phe Thr Ile Glu Ser Thr 105 Asp Ser Arg Thr Ile Tyr Lys Pro Asn Leu His Val Gln Tyr Ser Phe 120 125 Asp Asn Gly Phe Tyr Val Ala Ala Arg Tyr Arg Tyr Glu Tyr Thr Arg 135 140 Tyr Pro Ser Ser Asn Lys Asp Asp Lys Val Asn Arg Gly Asp 150 155 Ala Trp Val Gly Trp Val Leu Gly Asp Trp Arg Thr Glu Leu Asn Tyr 170 165 Val Tyr Ala Lys Ser Ser Glu Gly Val Ala Arg Asn Asn Asn Lys Asp 180 185

```
Tyr Ser Asn Glu Tyr Asn Ala Lys Leu Ala Tyr Lys Trp Asp Lys Asn
       195
                            200
Trp Ala Pro Tyr Val Glu Val Gly Asn Val Gly Val Lys Asp Thr Asp
                        215
                                            220
Glu Arg Gln Thr Arg Phe Arg Leu Gly Val Ala Tyr Ser Phe
                    230
<210> 6252
<211> 109
<212> PRT
<213> Enterobacter cloacae
<400> 6252
Ser Arg Tyr Ile Met Arg Tyr Ser Pro Glu Ala Leu Thr Ala Phe Val
Glu Thr Val Ala Ala Gly Ser Phe Ser Ala Ala Ala Arg Arg Leu Arg
Lys Ser Gln Ser Thr Ile Ser Thr Ser Ile Ala Asn Leu Glu Ala Asp
                            40
Leu Gly Phe Glu Leu Phe Asp Arg Ser Ala Arg His Pro Val Leu Thr
                        55
Ala Gln Gly Glu Gln Val Leu Gly Tyr Val Gln Ser Ile Leu Ala Ala
                    70
                                        75
Ser Ala Arg Leu Asp Glu Leu Ala Val Ser Leu Thr Ala Gln Lys Glu
               85
                                    90
Gly Pro Val Leu Thr Phe Val Leu Ser Asp Thr Leu
<210> 6253
<211> 185
<212> PRT
<213> Enterobacter cloacae
<400> 6253
Pro Ala Val Leu Glu Gln Met Met Ser Lys Phe Asp Gln Arg Phe Pro
                                    10
His Thr Glu Phe Glu Cys Leu Ile Gly Glu Glu Glu Asp Val Ile Asp
Leu Leu Gln Lys Glu Arg Ala Gln Ile Gly Leu Thr Glu Ala Arg Asp
Ser Tyr Pro Thr Asp Ile Gly. Ala Thr Arg Leu Pro Met Gln Thr Arg
                        55
Met Ala Ile Tyr Val Ser Ala Gly His Pro Leu Ala Gly Gln His Glu
                    70
Thr Gln Ala Asp Glu Leu His Gly Trp Arg Glu Leu Arg Leu Ser Thr
                                    90
Tyr Leu Glu Arg Glu Ala Pro Leu Ala Arg Gly Pro Val Trp Ser Ala
                                105
Pro Asn Tyr Leu Leu Leu Ser Met Ala Val Gln Gly Phe Gly Trp
                            120
                                                125
Cys Ala Leu Pro Cys Ala Leu Val Asp Glu Phe Ala Ala Ser Lys Ser
                        135
                                            140
Leu Val Gln Leu Asn Val Pro Gly Trp Pro Arg Ser Ile Ala Ile Asp
                    150
                                        155
Leu Val Trp Asn Lys Arg Thr Pro Pro Gly Val Ala Gly Ser Trp Leu
                165
                                    170
Arg Gln Tyr Leu Gln Asp Ala Arg
                                185
```

<212> PRT

```
<213> Enterobacter cloacae
<400> 6254
Tyr Val Ala Leu Met Ser Lys Ile Trp Ser Lys Glu Glu Thr Leu Trp
                                    10
Ser Phe Ala Leu Tyr Gly Thr Ala Val Gly Ala Gly Thr Leu Phe Leu
            20
                                25
Pro Ile Gln Leu Gly Ser Ala Gly Ala Ile Val Leu Leu Ile Thr Ala
                            40
Leu Val Ala Tyr Pro Leu Thr Tyr Trp Pro His Lys Ala Leu Ala Gln
Phe Ile Leu Ser Ser Lys Thr Lys Gly Asn Ala Gly Ile Thr Ser Ser
                    70
                                         7.5
Pro Ala Gly Ala Gly Arg Ile Gln Arg Asn Ala Tyr
<210> 6255
<211> 476
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(238)
<400> 6255
Pro Val Thr Leu Thr Thr Leu Asn Thr Leu Ser Gly Lys Thr Arg Arg
                                     10
Phe Asp Met Ala Tyr Gln Thr Val Asn Pro Ala Thr Asn Gln Leu Ile
                                2.5
Lys Glu Tyr Pro Ser His Thr Asp Ala Asp Val Glu Ala Ala Leu Lys
        35
                            40
Ala Ala Asp Ala Leu Tyr His Ser Glu Trp Ala Lys Gly Asp Ile Ser
                        55
Gln Arg Leu Pro Val Leu His Lys Leu Ala Asp Leu Ile Asp Glu Arg
                                         75
Val Glu Asp Leu Ala Lys Ile Ala Ser Gln Glu Met Gly Lys Leu Ile
                                     90
Glu Gln Ser Arg Gly Glu Val Lys Leu Cys Ala Gln Ile Ala Arg Tyr
                                105
            100
Tyr Ala Asp Asn Ala Lys Gln Phe Leu Ala Pro Val Lys Tyr Asp Ser
                            120
                                                 125
Glu Leu Gly Glu Ala Trp Val Glu His His Pro Ile Gly Val Leu Met
                        135
Ala Val Glu Pro Trp Asn Phe Pro Tyr Tyr Gln Leu Met Arg Val Leu
                                         155
Ala Pro Asn Leu Ala Ala Gly Asn Pro Val Ile Ala Lys His Ala Ser
                                     170
Ile Val Pro His Cys Ala Glu Thr Phe Ala Gln Leu Val Arg Glu Ser
                                185
                                                     190
Gly Arg Pro Arg Lys Gly Ala Trp Thr Asn Leu Phe Ile Ser Ser Glu
                            200
        195
Gln Val Ala Asn Ile Ile Ala Asp Asp Arg Val Gln Gly Ala Ala Leu
                        215
                                             220
Thr Gly Ser Glu Lys Pro Gly Ser Val Val Ala Ala Gln Xaa Ala Lys
                    230
                                        235
His Ile Lys Lys Ser Thr Leu Glu Leu Gly Gly Asn Asp Val Phe Val
                245
                                    250
```

Val Leu Asp Asp Ala Glu Leu Glu Lys Ala Val Lys Ile Gly Val Asn 260 265 270

```
Ala Arg Leu Asn Asn Ala Gly Gln Val Cys Thr Ala Ala Lys Arg Phe
                            280
                                                285
Ile Leu His Glu Lys Ile Ala Asp Ala Phe Leu Ser Lys Phe Thr Glu
                       295
                                            300
Ala Phe Lys Gln Val Lys Ile Gly Asp Pro Leu Asp Glu Ser Thr Thr
                    310
                                        315
Leu Gly Pro Leu Ser Ser Lys Asp Ala Leu Glu Thr Leu Thr Lys Gln
                325
                                    330
Val Asn Glu Ala Val Lys Asn Gly Ala Lys Leu His His Gly Gly Lys
                                345
Pro Val Gln Arg Asp Gly Ser Phe Phe Glu Pro Thr Ile Leu Thr Asn
                            360
Ile Ser Arg Asp Asn Pro Ala Tyr Phe Glu Glu Phe Phe Gly Pro Val
                        375
                                            380
Ala Gln Ile Tyr Val Val Lys Asn Asp Asp Glu Ala Val Ala Leu Ala
                    390
                                        395
Asn Asp Ser His Tyr Gly Leu Gly Gly Ala Val Phe Ser Gln Asn Ile
                405
                                    410
Glu Arg Ala Lys Lys Met Ala Ser Arg Ile Glu Thr Gly Met Val Tyr
            420
                                425
Ile Asn Trp Leu Thr Asp Thr Ala Ala Glu Leu Pro Phe Gly Gly Val
        435
                            440
Lys Arg Ser Gly Tyr Gly Arg Glu Leu Ser Asp Leu Gly Ile Lys Glu
                        455
                                            460
Phe Val Asn Gln Lys Leu Val Val Arg Lys
                    470
                                        475
<210> 6256
<211> 621
<212> PRT
<213> Enterobacter cloacae
<400> 6256
Ile Gly Arg Arg Asn Met Ala Ile Ile Ile Pro Thr Val Ser Ser Cys
                                    10
Ser Glu Lys Ile Thr Ala Gly Glu Lys Arg Leu Ala Arg Leu Leu Glu
Gly Gly Leu Ser Glu Gln Cys Thr Cys Trp Tyr Asp Thr Arg Met Gly
Asp Lys Asp Asp His Pro Asp Phe Val Ile Leu Ala Pro Asp Lys Gly
                        55
Leu Leu Phe Ile Glu Val Lys Asp Trp Tyr Ile Thr Lys Ile Lys Ser
                                        75
Ala Asn Lys Thr His Ile Asn Tyr Glu Thr Lys Asn Gly Ile Glu Pro
Leu Lys Asn Pro Leu Glu Gln Val Arg Gln Tyr Thr Phe His Ile Ile
                                105
Asn Ser Leu Lys Lys Asp Pro Leu Leu Arg Gln Lys Gln Gly Asp His
                            120
                                                125
Glu Gly Gly Phe Ile Met Pro Tyr Gly Tyr Gly Val Tyr Leu Ser Asn
                        135
                                            140
Ile Thr Arg Ala Gln Leu Glu Lys Ser Phe Thr Pro Glu Glu Leu Asn
                    150
                                        155
Glu Ile Leu Pro Ala Ser Gln Val Ile Cys Lys Asp Glu Leu Asn Glu
                                    170
               165
Phe Met Thr Arg Glu Gln Ile Ser Gly Arg Leu Glu Ser Leu Lys
            180
                                185
His His Phe Val His Asn Thr Thr Pro Gln Gln Leu Asp Arg Ile Arg
                            200
                                                205
```

Trp His Leu Tyr Pro Asp Val Arg Ile Asn Pro Ser Val Thr Arg Val

```
Gly Leu Asp Asn Phe Thr Phe His Thr Pro Asp Val Val Cys Met Met
                    230
                                        235
Asp Arg Asn Glu Glu Glu Leu Ala Arg Ser Met Gly Ala Gly His Arg
                245
                                    250
Val Ile His Gly Val Ala Gly Ser Gly Lys Thr Leu Ile Leu His His
                                265
Arg Cys Ile Glu Leu Ala Asn Asn Ile Glu Asn Thr Lys Pro Ile Leu
                            280
Val Ile Cys Tyr Asn Ile Thr Leu Ala Lys Lys Leu Lys Ala Gln Leu
                        295
                                            300
Glu Gln His Ser Leu Arg Leu Pro Val Glu Val Ile His Phe His Ala
                    310
                                        315
Trp Cys Tyr Gln Gln Leu Asn Ala His Arg Arg Leu Pro Pro Arg Ser
                                    330
                325
Lys Asn Phe Ile Glu Leu Met Glu Asn Ala Leu Thr Val Ala Phe Glu
            340
                                345
Glu Gly Ala Ile Thr Pro Glu Gln Tyr Ser Ala Val Leu Ile Asp Glu
                            360
Gly His Asp Phe Lys Pro Glu Trp Leu Arg Ile Leu Ala Lys Met Pro
                        375
Asp Asn Lys Asp Ser Ser Leu Leu Phe Leu Tyr Asp Asp Ala Gln Ser
                    390
                                        395
Ile Tyr Gln Lys Lys Lys Ala Leu Asp Phe Thr Leu Ser Ser Val Asp
                                    410
Ile Lys Ala Gln Gly Arg Thr Thr Ile Leu Asp Thr Asn Tyr Arg Asn
                                425
Thr Arg Gln Ile Leu His Phe Ala Ser Ser Val Pro Phe Asn Tyr Leu
                            440
Asn Asn His Ile Glu Ala Ser Leu Lys Tyr Gln Gln Pro Ala Ala Gly
                        455
Gly Leu Ser Gly Lys Tyr Pro Ala Leu Ala Ser Phe Asp Asn Gln Asp
                    470
                                        475
Glu Glu Ile Thr Arg Val Leu Asp Trp Val Thr Glu Gln Arg Gln Glu
                485
                                    490
Gly Val Ala Trp Ser Glu Ile Ala Ile Leu Cys Pro Ser Thr Tyr Ser
                                505
Ile Ser Gly Met Leu Ala Pro Arg Leu Glu Ala Arg Lys Ile Pro Tyr
                            520
                                                525
        515
Gln Met Ile Val Ser Ser Asp Asp Lys Lys His Trp Ser Pro Gln Asn
                        535
                                            540
Asp Tyr Leu Cys Val Met Pro Leu Pro Ser Ser Lys Gly Leu Glu Phe
                                        555
                    550
Asn Ser Val Ala Ile Met Asp Ala Ala Lys Glu Arg Asp Ser Glu Asp
                565
                                    570
Leu Ser Asp Asp Ile Lys Arg Leu Tyr Val Gly Ile Thr Arg Ala Arg
            580
                                585
Gln Asn Leu Val Thr Met His Gly Thr Gly Ser Leu Arg Asp His
                           600
Leu Val Glu Thr Trp Glu Lys Ser Val Lys Ser Ile
                        615
```

<210> 6257

<211> 189

<212> PRT

<213> Enterobacter cloacae

<400> 6257

Phe Asp Asp Glu Glu Thr Arg Met Lys Lys Leu Asn Val Leu Ile Leu 1 5 10 15 Ser Ala Leu Thr Ala Val Ser Gly Ser Ala Leu Ala Met Gly Gly Ser 20 25 30

```
Ile Glu Gln Gly Lys Asn Phe Thr Asn Leu Asn Val Glu Met Gly Lys
                            40
Ser Thr Ser Gly Leu Tyr Thr Glu Gly Asn Trp Leu Lys Asn Thr Asp
Asp Gly Thr Thr Gly Gly Val Gly Ala Gly Tyr Asn Phe Glu Val
                    70
Gly Pro Val Met Leu Asn Ala Gly Ala Lys Ala Leu Tyr Val Gly Pro
                                    90
Lys Lys Gly Asp Asn Gly Val Ala Phe Pro Val Gly Gly Val Asn
                                105
Val Ala Leu Thr Asp Ser Ile Arg Val Phe Gly Glu Gly Tyr Val Ala
                            120
                                                125
Pro Asp Gly Leu Asn Asn Ser Val Lys Asn Tyr Val Glu Ala Asn Gly
                        135
    130
                                            140
Gly Val Ser Trp Thr Pro Val Lys Pro Val Thr Leu Lys Val Gly Tyr
                    150
                                        155
Arg His Val Ser Val Asp Gly Lys Asp Gly Arg Pro Asn His Thr Leu
                                    170
                165
Val Asp Gly Ala Tyr Phe Gly Gly Gly Val Ser Phe
            180
                                185
<210> 6258
<211> 74
<212> PRT
<213> Enterobacter cloacae
<400> 6258
Gly Ile Leu Gln Met Ala Lys Ile Lys Gly Gln Val Lys Trp Phe Asn
                                    10
Glu Ser Lys Gly Phe Gly Phe Ile Thr Pro Ala Asp Gly Ser Lys Asp
            20
Val Phe Val His Phe Ser Ala Ile Gln Gly Asn Gly Phe Lys Thr Leu
Ala Glu Gly Gln Asn Val Glu Phe Glu Ile Gln Asp Gly Gln Lys Gly
Pro Ala Ala Val Asn Val Thr Ala Ile
<210> 6259
<211> 593
<212> PRT
<213> Enterobacter cloacae
<400> 6259
Ile Arg Ala Leu Ile Asn Ser Pro Gly Val Lys Val Lys Lys Lys Thr
                                    10
Ile Thr Thr Gly Asn Phe Thr Pro Ala Arg Phe Ala Leu Leu Cys
            20
                                25
Leu Ala Ile Phe Cys Ser Leu Ala Phe Leu Leu Gly Arg Val Ala Trp
                            40
                                                45
Leu Gln Ile Ile Lys Pro Asp Asn Leu Val Lys Gln Glu Asp Met Arg
                        5.5
                                            60
Ser Leu Arg Glu Val Ala Ile Asp Ala Pro Arg Gly Met Ile Val Asp
                    70
                                        75
Arg Glu Gly Arg Pro Leu Ala Val Ser Val Pro Val Gln Ala Val Trp
                                    90
Ala Asp Pro Lys Thr Val Leu Glu Lys Gly Gly Ile Gly Tyr Asp Ser
                                105
Arg Trp Gln Ala Leu Ala Asn Ala Leu His Leu Ser Leu Ser Thr Leu
                            120
```

Ala Ser Arg Ile Asn Ser Asn Pro His Gly Arg Phe Ile Tyr Leu Ala

		130					135					140				
	Arg 145	Gln	Val	Asp	Pro	Ser 150	Gln	Ala	Lys	Trp	Ile 155	Asp	Lys	Leu	Arg	Leu 160
]	Pro	Gly	Ile	Asn	Leu 165	Arg	Asp	Glu	Ser	Arg 170	Arg	Phe	Tyr	Pro	Ala 175	Gly
1	His	Val	Ala	Ala 180	Asn	Leu	Ile	Gly	Phe 185	Thr	Asn	Ile	Asp	Gly 190	Gln	Gly
-	Ile	Glu	Gly 195	Val	Glu	Lys	Ser	Phe 200		Thr	Gln	Leu	Thr 205		Lys	Ala
(	Gly	Val 210		Leu	Val	Arg	Lys 215		Arg	Tyr	Gly	His 220		Val	Glu	Asn
	Leu 225		Glu	Val	Ala	Pro 230		Pro	Ala	His	Asn 235		Gln	Leu	Ser	Ile 240
		Glu	Arg	Leu	Gln 245	Thr	Ile	Thr	Glu	Asp 250		Leu	Asp	Asn	Ala 255	
1	Ala	Trp	Asn	Lys 260		Glu	Ser	Gly	Ala 265		Val	Leu	Ile	Asn 270		Gln
	Γhr	Gly	Glu 275		Leu	Ala	Met	Ala 280		Phe	Pro	Asp	Phe 285		Pro	Asn
I	Asn	Arg 290	Glu	Gly	Ala	Thr	Leu 295		Asp	Phe	Arg	Asn 300		Ala	Ile	Ser
	Asp 305	Thr	Phe	Glu	Pro	Gly 310	Ser	Thr	Val	Lys	Pro 315	Leu	Val	Leu	Met	Thr 320
1	Ala	Leu	Gln	Gln	Gly 325	Leu	Val	Gln	Pro	Asp 330	Ser	Val	Ile	Asp	Thr 335	
				340		Gly			345					350		
(	Glu	Leu	Thr 355	Met	Thr	Gly	Ile	Leu 360	Gln	Lys	Ser	Ser	Asp 365	Thr	Gly	Val
		370				Ala	375				_	380		_		_
3	385					Gly 390					395					400
					405	Pro				410					415	
				420		Gly			425					430		
			435			Thr		440					445			
		450				Asp	455					460				
4	165					Glu 470					475					480
					485	Ile				490					495	
				500		Ala -	_	_	505	_			_	510	-	
			515			Tyr		520					525		_	
		530				Val	535					540				
	'yr 545	GTA	GLY	Ala	val	Ser	Ala	Pro	۷al	Phe		GLu	Ile	Met	Gly	
		Leu	Arg	Leu	Glu 565	550 Asn	Val	Lys	Pro	Asp 570	555 Gly	Leu	Pro	Ala	Asp 575	560 Ser
F	Asp	His	Leu	Ile 580		Met	His	His	Pro 585		Val	Tyr	Asn	Pro 590		Glu

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<211> 285
<212> PRT
<213> Enterobacter cloacae
<400> 6260
Arg Tyr Thr Ser Pro Phe Gly Leu Arg Pro Gly Ala Val Met Ser Phe
                                    10
Ser Cys Pro Leu Cys His Ala Pro Leu Thr Arg Ala Glu Lys Thr Phe
                                25
Ile Cys Pro Gln Gly His Gln Phe Asp Arg Ala Lys Glu Gly Tyr Val
                            40
Asn Leu Leu Pro Val Gln His Lys Arg Ser Arg Asp Pro Gly Asp Ser
                        55
Ala Glu Met Met Gln Ala Arg Arg Ala Phe Leu Asp Ala Gly His Tyr
                    70
                                         75
Gln Pro Leu Arg Asp Ala Val Val Ala Leu Leu Arg Glu Tyr Leu Thr
                                    90
Glu Gly Ala Ser Ala Met Leu Asp Ile Gly Cys Gly Glu Gly Tyr Tyr
                                105
Thr Ala Thr Phe Ala Asp Val Ala Ala Glu Lys Gly Ala Glu Thr Tyr
                            120
Gly Leu Asp Val Ser Lys Val Ala Ile Arg Ala Ala Ala Lys Arg Tyr
                        135
                                            140
Ser Ala Val Thr Phe Cys Val Ala Ser Ser His Arg Leu Pro Phe Glu
                    150
                                        155
Glu Ala Ser Met Asp Ala Val Val Arg Ile Tyr Ala Pro Cys Lys Ala
                165
                                    170
Glu Glu Leu Ala Arg Val Val Lys Pro Gly Gly Trp Val Ile Thr Val
                                185
Thr Pro Gly Pro Arg His Leu Leu Glu Leu Lys Gly Leu Ile Tyr Asp
                            200
Glu Val His Leu His Ala Pro His Ser Glu Gln Leu Ala Gly Phe Ala
                        215
                                            220
Leu Lys Gln Ala Gln Ser Val Ala Tyr Glu Met Thr Leu Gln Gly Ser
                    230
                                         235
Glu Ala Val Ala Leu Leu Gln Met Thr Pro Phe Ala Trp Arg Ala Lys
                245
                                    250
Pro Glu Val Trp Glu Thr Leu Ala Ala Gln Thr Glu Phe Arg Cys Gln
                                265
Thr Asp Phe Ser Ile His Cys Trp Gln Arg Glu Gly
                            280
<210> 6261
<211> 141
<212> PRT
<213> Enterobacter cloacae
<400> 6261
Asn Ser Ile Pro Arg Pro Arg Leu Arg Leu Phe Asn Ala Val Arg
Leu Leu Thr Arg Tyr Tyr Gly Val Ala Tyr Gly Tyr Arg Lys Gly Val
Asp Ile Val Lys Asp Met Gly Gly Gly Phe Leu Gln Lys Leu Thr Glu
                            40
Gly Ala Ser Ile Leu Gly Leu Phe Val Met Gly Ala Leu Val Asn Lys
                        55
Trp Thr His Val Asn Ile Pro Leu Val Val Ser Thr Ile Thr Gly Gln
                    70
                                        75
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Asp Gly Gln Thr Arg Val Thr Thr Val Gln Thr Ile Leu Asp Gln Leu

Met Pro Gly Leu Val Pro Leu Leu Thr Phe Ala Cys Met Trp Leu

100 105 Leu Arg Lys Lys Val Asn Pro Leu Trp Ile Ile Val Gly Phe Phe Val 120 125 Ile Gly Ile Ala Gly Tyr Ala Val Gly Leu Leu Gly Leu 130 135 <210> 6262 <211> 153 <212> PRT <213> Enterobacter cloacae <400> 6262 Met Thr Val Thr Asp Thr Val Leu Val Leu Phe Ile Val Ala Leu Leu Ala Tyr Ala Ile Tyr Asp Glu Phe Ile Met Pro Arg Arg His Gly Glu 25 Thr Leu Leu Thr Leu Pro Leu Leu Arg Arg Gly Arg Ile Asp Ala Phe Ile Phe Ala Gly Leu Val Val Ile Leu Ile Tyr Asn Asn Val Thr Ser 55 His Gly Ala Ile Leu Thr Trp Leu Leu Cys Ala Leu Ala Leu Met 75 70 Ala Ile Tyr Leu Phe Trp Ile Arg Ser Pro Lys Leu Ile Phe Lys Lys 90 85 His Gly Phe Phe Ala Asn Val Trp Ile Glu Tyr Asn Arg Ile Lys 105 Glu Met Asn Leu Ser Glu Asp Gly Val Leu Val Met Gln Leu Glu Gln 120 Arg Arg Leu Leu Ile Arg Val Arg Asn Ile Asp Asp Leu Glu Lys Ile 135 Tyr Lys Leu Leu Val Lys Thr Gln 150 <210> 6263 <211> 258 <212> PRT <213> Enterobacter cloacae <400> 6263 Gly Cys Ala Arg Arg Trp Gly Val Ala Asp Phe Leu Pro Ala Gly Asn 10 Val Arg Val Asn Ile Leu Val Glu Lys Arg Gly Ala Tyr Gly Ser Phe 25 Leu Ser Thr Ile Thr Val Pro Glu Ala Ile Arg Arg Asp His Arg Tyr Ile Asn Cys Cys Leu Leu Gly Ala Val Met Cys His Met Asp Ile Pro Gly Leu Asp Ala Leu Met Asn Ile Ser Ala Thr Ile Leu Leu Ala Phe Gly Met Ser Met Asp Ala Phe Ala Ala Ser Ile Gly Lys Gly Ala Thr 85 Leu His Lys Pro Lys Phe Ser Glu Ala Leu Arg Thr Gly Leu Ile Phe 105 Gly Ala Ile Glu Thr Leu Thr Pro Leu Ile Gly Trp Gly Leu Gly Met 120 125 Leu Ala Ser Gln Phe Val Leu Glu Trp Asn His Trp Ile Ala Phe Val 135 140 Leu Leu Val Phe Leu Gly Gly Arg Met Val Ile Glu Gly Phe Arg Gly 150 155 Asn Gly Asp Glu Asp Asp Ala Pro Leu Gln Arg His Gly Phe Trp Leu

170

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Leu Val Thr Thr Ala Ile Ala Thr Ser Leu Asp Ala Met Ala Val Gly
                               185
Val Gly Leu Ala Phe Leu Gln Val Asn Ile Ile Ala Thr Ala Leu Ala
                            200
Ile Gly Cys Ala Thr Leu Ile Met Ser Thr Leu Gly Met Met Val Gly
                       215
                                            220
Arg Phe Ile Gly Pro Leu Leu Gly Lys Arg Ala Glu Ile Leu Gly Gly
                    230
                                        235
Ile Val Leu Ile Gly Ile Gly Ala Gln Ile Leu Trp Ala His Phe Ala
                245
                                    250
Gly
<210> 6264
<211> 68
<212> PRT
<213> Enterobacter cloacae
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Phe Ser Arg Leu Glu Tyr Leu Pro Val Thr Gln Gly Val Ala Gly Ser
                                    10
Ser Pro Val Arg Ser Ala Asn Ile Gln Ala His Val Thr Cys Asn Val
                                25
Gly Leu Phe Val Phe Pro Leu Ser His Val Phe Leu Asn Phe Cys Ser
                            40
Gly Thr Ser Ala Glu Asn His Ile Tyr Thr Ile Leu Phe Phe Val Phe
                        55
Asn Gln Phe
<210> 6265
<211> 1209
<212> PRT
<213> Enterobacter cloacae
<400> 6265
Ile Ser Pro Arg Thr Leu Ser Met Thr Glu Asn Lys Val Ile Leu Ala
                                    10
Val Asn Asn Gly Asp Gly Lys Thr Arg Leu Leu Thr Ala Asp Ala Gly
                                25
Arg Thr Val Lys Val Lys Leu Ile Pro Gly Asn Lys Tyr Leu Leu Lys
                            40
                                                45
Asn Val Asn Asp Asp Phe Ala Pro Glu Asn Ile Thr Leu Gln Arg Val
                        5.5
Gly Lys Ala Leu His Ile Ile Gln Glu Gly Asp Thr Gln Pro Ser Ile
                                        75
                   70
Ile Ile Glu Asn Tyr Phe Asp Gly Asp Ser Lys Asn Pro Thr Leu Met
               85
                                    90
Gly Met Ala Glu Asp Gly Leu Leu Tyr Ala Tyr Ile Pro Leu Ser Gly
                                105
                                                    110
Glu Ser Tyr Asp Asn Gly Tyr Leu Met Ala Glu Gly Gly Leu Ala Pro
                           120
                                                125
Val Ala Leu Gly Gly Glu Pro Leu Gly Ala Gly Gly Pro Leu Leu Ser
                       135
Ala Pro Asp Asp Glu Asn Asp Met Leu Phe Gly Met Leu Gly Trp Phe
                   150
                                        155
Ala Leu Ala Ala Gly Val Gly Ala Ala Phe Ala Leu Ser Glu Leu
               165
                                    170
Asp Lys Asp Glu Ser Asp Ser Gln Pro Ala Pro Glu Lys Pro Ser Ile
                               185
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Gly Lys Ala Val Asp Asp Glu Gly Ser Ile Lys Gly Pro Leu Lys Ser

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195
                            200
                                                 205
Gly Asp Val Thr Asp Asp Ser Thr Pro Ser Leu Ile Gly Lys Gly Lys
                       215
                                            220
Pro Gly Asp Thr Ile His Ile Ile Asp Asn Asp Lys Glu Ile Gly Ser
                   230
                                       235
Val Ile Val Asp Asp Glu Gly Glu Trp Ser Tyr Thr Pro Asp Lys Pro
                245
                                   250
Leu Gly Glu Gly Glu His Asp Leu Ser Val Val Glu Asp Pro Asp
            260
                               265
Gly Asn Met Ser Pro Pro Ser Asp Pro Ile Thr Ile Val Val Asp Thr
                            280
                                                285
Val Ala Pro Asp Ala Pro Thr Ile Glu His Ile Met Asp Lys Val Gly
                        295
Lys Val Thr Gly Glu Ile Leu Glu Asp Ala Tyr Thr Asp Asp Pro Lys
                    310
                                        315
Pro Glu Met Ser Gly Thr Gly Glu Ala Gly Ala Thr Ile Thr Ile Tyr
                325
                                    330
Asp Asn Gly Lys Lys Ile Gly Glu Thr Ser Val Asn Asp Asp Gly Arg
                                345
            340
Trp Tyr Phe Lys Pro Ser Glu Asn Leu Thr Asp Gly Asn His Ser Ile
                            360
                                                365
Thr Val Ser Gln Thr Asp Lys Ala Gly Asn Val Ser Glu Pro Ser Asp
                        375
                                            380
Glu Arg Asp Phe Ile Val Leu Thr Glu Pro Pro Gly Lys Ala Glu Thr
                    390
                                        395
Pro Ser Val Ile Asp Asp Asn Gly Pro Val Thr Gly Pro Leu Lys Pro
                405
                                    410
Gly Asp Val Thr Asp Asp Thr Lys Pro Ser Phe Ser Gly Glu Gly Thr
            420
                                425
Pro Gly Asn Thr Ile Val Ile Lys Asp Asn Asp Lys Glu Ile Gly Ser
                            440
Val Ile Val Asp Asp Glu Gly Lys Trp Thr Tyr Thr Pro Glu Lys Asp
                        455
                                            460
Leu Ser Glu Gly Glu His Asn Val Glu Val Ile Glu Glu Asp Pro Leu
                    470
                                        475
Gly Asn Val Gly Gln Pro Ser Asp Pro Ile Gln Ile Ile Val Asp Thr
                485
                                    490
Thr Pro Pro Ala Arg Pro Asp Arg Val Tyr Ala Glu Asp Asn Thr Gly
                                505
Pro Ile Thr Gly Gln Leu Lys Gly Gly Asp Val Thr Asp Glu Thr Arg
                            520
                                                525
Pro Val Phe Ser Gly Lys Gly Glu Pro Gly Asp Thr Val Thr Ile Tyr
                        535
                                            540
Asp Gly Asp Glu Val Leu Gly Ser Thr Val Ile Asp Asp Glu Gly Asn
                    550
                                        555
Trp Ser Leu Lys Pro Glu Lys Pro Leu Gly Glu Gly Asp His Ser Ile
                                    570
                565
Thr Val Thr Gln Thr Asp Lys Ala Gly Asn Thr Ser Asp Pro Ser Glu
                                585
                                                    590
Ala Leu Glu Phe Glu Val Asp Thr Thr Ala Pro Ala Ala Ser Ala Asp
                            600
                                                605
Val Leu Lys Ile Thr Ala Val Ala Asp Asp Val Gly Asp Arg Gln Gly
                        615
                                            620
Asn Val Ala Ser Gly Glu Ile Thr Asp Asp Ser Lys Pro Leu Ile Ser
                    630
                                        635
Gly Ile Gly Glu Ala Gly Asn Thr Val Tyr Val Tyr Thr Thr Asp Ala
                                    650
Ser Gly Lys His Leu Ile Gly Ser Ala Val Val Gly Ser Asp Gly Thr
                                665
Trp Ser Leu Thr Pro Glu Thr Pro Leu Thr Glu Gly Leu Asn Gln Leu
                            680
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نن: ا

Thr Leu Glu Thr Gln Asp Pro Ala Gly Asn Arg Val Ala Gly Asp Ala 695 700 Pro Ser Tyr Asp Ile Asn Leu Met Ile Pro Ile Ser Thr Gln Pro Ser 710 715 Ile Asn Ser Val Val Asp Asn Ser Glu Pro His Val Gly Pro Leu Gln 730 725 Lys Gly Asp Ala Thr Asn Asp Thr Thr Pro Thr Leu Ser Gly Ser Ala 745 740 750 Ala Pro Gly Asp Ile Val Ser Ile Leu Asp Asn Gly Lys Val Ile Gly 760 765 Ser Val Thr Ala Asp Ser Asn Gly Lys Trp Thr Phe Thr Pro Asp Ala 775 780 Ala Leu Ala Asp Gly Lys His Thr Phe Thr Val Thr Ala Thr Asp Ala 790 795 Ala Gly Asn Ser Arg Thr Ser Gly Ser Phe Pro Ile Val Ile Asp Thr 810 Ala Ala Pro Ser Pro Ala Glu Asn Ile Val Ile Asn Asp Asn Val Gly 825 Asp Lys Gln Gly Pro Val Gly Ser Gly Asp Thr Thr Asp Asp Gln Ser 840 Pro Thr Leu Ser Gly Glu Ala Glu Pro Gly Ser Val Val Asp Ile Tyr 855 860 Asp Asp Asp Glu Lys Ile Gly Ser Val Ile Val Asp Asp Glu Gly Lys 870 875 Trp Ser Tyr Thr Pro Asp Lys Pro Leu Asp Lys Gly Asp His Glu Ile 885 890 Thr Thr Thr Val Thr Asp Pro Ser Gly Asn Thr Ser Glu Pro Ser Pro 905 900 Gly Ile Ser Phe Thr Val Asp Pro Asp Pro Asn Gln Val Thr Val Gly 920 925 Glu Val Val Asp Asp Gln Gly Pro Ile Val Gly Asn Leu Lys Pro Gly 940 935 Thr Val Thr Asp Asp Val Arg Pro Glu Leu Ser Gly Lys Gly Lys Pro 950 955 Gly Ser Thr Val Thr Ile Lys Asp Gly Asp Asp Val Leu Gly Ser Thr 970 965 Val Val Asp Pro Asp Gly Asn Trp Thr Phe Thr Pro Glu Gln Asp Leu 985 980 Ala Asp Gly Asn His Ser Leu Thr Val Val Ser Lys Asp Pro Ala Gly 1000 1005 995 Asn Glu Val Thr Ser Pro Ser Phe Asp Ile Thr Val Asp Ala Thr Ala 1015 1020 Pro Glu Lys Pro Val Leu Gly Ser Ala Thr Asp Asp Val Gly Thr Ile 1030 1035 Arg Gly Asp Leu Ser Asn Gly Ser Thr Thr Asp Asp Ala Asn Pro Thr 1045 1050 Phe Asn Gly Ser Ala Glu Pro Gly Ile His Gln Leu Val Lys Arg Phe 1065 1060 Gln Gly Arg Phe Gly Met Leu Ile Thr Gln Arg Gln Pro Asp Asn Gly 1080 1085 Cys Gln Arg Gly Glu Arg Thr Ala Gly Lys Asp His Tyr Ala Asn His 1095 1100 Gly Ala His Arg Glu Leu Ala Arg Val Asp Gln Ile His Thr Gln His 1110 1115 Asn Asn Thr Asp Arg Gly Asn Leu Leu Asn Glu Gly Asp Lys Ile Gly 1130 1125 Ser Gln His Gly Lys Val Ala Gly Phe His Gly Gly Ser Gly Ser Gln 1140 1145 1150 Arg Ala Glu Ile Ile Pro Ala Leu Leu His Asn Ala Phe Thr Leu Arg 1160 Ser Phe Gln Gly Phe Lys Ser Leu Asn Ala Phe Asn Gln Gln Ala Leu

1175 1180 1170 Leu Glu Arg Asn Leu Ala Asn Val Phe Phe His Ile Ala Thr Gln Arg 1190 1195 Pro Leu Asn Asn Asp Ala Gly Asn 1205 <210> 6266 <211> 190 <212> PRT <213> Enterobacter cloacae <400> 6266 Asn Lys Cys Val Cys Pro Ser Phe Arg Thr Glu Gln Gln Gly Glu Cys Asn Gly Ser Glu Phe Tyr Ile Trp Pro Glu Asn Asn Ser Phe Leu Ile 25 Glu Gly Ile Leu Gln Tyr Phe Asn Asn Ile Thr Val Lys Ile Ile Ser 40 Gln Pro Ile Val Val Ile Asp Phe Asn Tyr Lys Asn Ile Asn Phe Phe 55 Leu Thr Asn Ser Trp Leu Asp Arg Phe Lys Asn Ala Arg Leu Ile Leu 75 Ile Thr Asp Lys Lys Met Ala Ala Ile Ala His Tyr Trp Phe Tyr Asn 85 90 Asp Thr Ser Glu Thr Ile Ile Ser Thr Val Ile Phe His Asp Asp Ile 100 105 110 Ile Asp Asp Ile Lys Phe Lys Ile Arg Gln Ser Phe Leu Gly Lys Ile 120 125 Thr Arg Pro Ser Glu Lys Lys Ala Lys Leu Ser Ala Asn Glu Tyr Ala 135 140 Leu Phe Ser Glu Leu Tyr Lys Gly Gln Leu Pro Lys Lys Ile Ala Met 150 . 155 Lys Asn Ala Thr Asn Val Lys Asn Ile Tyr Ala Met Lys Ile Arg Ile 170 165 Glu Asn Lys Leu Gly Val Pro Ile Ser Arg Leu Ala Ser 190 185 <210> 6267 <211> 602 <212> PRT <213> Enterobacter cloacae <400> 6267 Lys Asn Ile Asn Leu Asp Gln Ser Thr Tyr Asn Ile Leu Asn His Ala 1 10 Val Val Tyr Leu Tyr Cys Val His Ile Arg Leu Thr Leu His Tyr Asp Ile Ala Ser Ala Cys Asn Phe Thr Ile Thr Ile Ser His Lys Leu Arg Thr Tyr Gly Cys Ser Trp Ser Ile Leu Ile Ala Cys Leu His Phe Ile 55 Phe Lys Val Arg Asn Val Thr Thr Gly Leu Asp Ser Ile Met Asn Thr 75 His Leu Ser Thr Val Lys Phe Asn Ser Glu His Asp Phe Asn Asn Ile 90 Glu Glu Pro Arg Lys Asp Ser Leu Leu Trp Gly Val Glu Trp Leu Cys 105 110 Ala His His Ala Lys Tyr Ala Ser Lys Glu Val Leu Tyr Ala Gly Leu 120 125

Pro Lys Ser Asp Lys Leu Glu Pro Glu Met Ala Leu Arg Met Leu Asp

140

Gln Met Gly Ile Ser Ala Gly Trp Val Lys Arg Asp Leu Asn Ser Ile Ser Ser Trp Leu Phe Pro Leu Leu Ile Ala Arg Lys Asp Gly Thr Tyr Cys Ile Ile Thr Ala Arg Asn Gly Lys Arg Gly Gln Phe Thr Tyr Gln Ile Val Val Pro Glu Asn Glu Gly Ile Leu Thr Val Ser Ala Ala Asp Leu Leu Glu Val Tyr Gly Gly Tyr Ala Leu Val Thr Thr Pro Lys Pro Ser Leu Asp Ala Arg Ala Asp Asp Leu Leu Pro Lys Ala Gln Asn Glu Gly His Trp Leu Tyr Ser Thr Leu Trp Arg Tyr Arg His Tyr Phe Tyr Ser Ala Ala Leu Ala Ala Leu Leu Ala Asn Ile Leu Thr Leu Ala Gly Thr Phe Phe Thr Met Asn Val Tyr Asp Arg Val Ile Pro Thr Gln Ala Tyr Val Thr Leu Trp Ser Leu Ala Ile Gly Val Val Ile Ala Asn Ile Phe Glu Phe Ser Ser Arg Gln Ile Arg Ala Tyr Leu Ile Asp Ile Ala Gly Lys Lys Ala Asp Leu Ile Leu Gly Ala Lys Leu Phe Arg Gln Val Met Ser Met Arg Met Glu Tyr Lys Pro Gln Ser Ser Gly Thr Phe Ala Asn Gln Leu Arg Asp Phe Glu Ala Val Arg Asp Phe Ile Thr Ser Ala Thr Leu Ala Thr Leu Ser Asp Leu Pro Phe Cys Val Leu Phe Met Phe Ile Ile Tyr Met Ile Gly Gly Pro Leu Ala Val Val Pro Leu Val Ala Met Pro Leu Ile Leu Ile Ala Ser Ile Val Ile Gln Trp Pro Leu Gly Arg Tyr Met Glu Glu Asn Val Arg Glu Ile Ser Leu Lys Gln Gly Leu Leu Ile Glu Ser Ile Glu Gly Leu Glu Ala Leu Lys Ala Ala Gln Gly Glu Gly Val Met Gln Lys Arg Trp Asp Asp Phe Ser Ala Leu Ala Ala Ala Ser Ser Met Lys Thr Arg Asn Leu Ser Met Leu Thr Thr Asn Phe Val Ser Phe Val Gln Gln Ile Thr Thr Val Cys Ile Val Val Leu Gly Val Tyr Leu Ile His Ala Gly Glu Leu Thr Met Gly Ala Met Ile Gly Val Val Ile Leu Ser Ser Arg Ser Leu Ala Pro Leu Ala Ser Val Val Gly Leu Ala Leu Arg Tyr Gln His Ala Lys Thr Ala Leu Lys Ser Leu Asn Gln Leu Met Asp Ala Arg Leu Cys Arg Ala Val Glu Gly Trp Val Cys Val Val Gly Gly Ala Ala Val Ala Gln Ile Ala Ala Asn Ser Ala His Val Ile Arg Cys Gly Ser Gln His Arg Phe Phe Arg Arg Gly Arg Ile Asp Gly Asp Ile Glu Gly Arg

<212> PRT <213> Enterobacter cloacae

<400> 6268 Lys Thr Ala Ala Leu Pro Gly Ala Gln Gly Gly Arg Met Ser Ala Phe Ala Arg Arg Leu Glu Thr Leu His Ala Thr Arg Pro Val Thr Val Leu Gly Ala Ala Val Ile Asp Val Ile Ala Asp Ala Tyr Ala Leu Pro Trp Arg Gly Cys Asp Ile Glu Leu Lys Gln Gln Gly Val Asn Ile Gly Gly 55 Cys Ala Leu Asn Ile Ala Ile Ala Leu Lys Arg Leu Gly Ile Ala Ala 70 75 Gln Asn Ala Leu Pro Val Gly His Gly Val Trp Ala Asp Ile Ile Arg 85 90 95 Asn Ala Met Ala Lys Gln Asp Leu His Ser Ala Val Glu Ala Glu Thr 105 100 Gly Asp Asn Gly Trp Cys Leu Ala Leu Val Glu Pro Asp Gly Glu Arg 120 - سد Thr Phe Met Ser Phe Ser Gly Val Glu Asn Gln Trp Gln Gln Arg Trp 135 Leu Asp Gly Leu Ser Val Pro Ala Gly Ser Leu Ile Ser Leu Ser Gly 165, -170 Ser Leu Gln Asp Ala Thr Leu Phe Ile Asp Phe Gly Pro Arg Ile Ala 185 190 Asp Ile Pro Asp Pro Leu Met Ala Arg Ile Met Ala Cys Lys Pro Ile 195 200 Val Ser Leu Asn Arg Gln Glu Ala Glu Leu Ala Ala Glu Trp Leu Gly 215 Val Ser Val Glu Glu Leu Gly Thr Arg Trp Gln Gln Arg Phe Gly Ala 230 235 Ala Leu Ile Ile Arg His Asp Lys Asp Gly Ala Val Trp Tyr Asp Gly 245 250 Asp Ala Ser Gly His Val Pro Ala Phe Pro Ala Thr Val Val Asp Thr 265 Ile Gly Ala Gly Asp Ser His Ala Gly Gly Thr Leu Ala Gly Leu Ala 280 Ala Gly Trp Ser Leu Pro Glu Ala Val Gln Leu Gly Asn Ala Val Ala 300 295 Ala Trp Val Val Ser His Arg Gly Gly Asp Cys Ala Pro Thr Arg Glu 310 315 Ala Leu Leu Ala His Lys Asp Val 325 330

<210> 6269 <211> 335

<212> PRT <213> Enterobacter cloacae

<400> 6269

Met Lys Gln Asp Arg Ile Leu Gly Ala Leu Tyr Gly Gln Ala Leu Gly
1 5 10 15

Asp Ala Met Gly Met Pro Ser Glu Leu Trp Pro Arg Lys Arg Val Lys
20 25 30

Ala His Phe Gly Trp Ile Asp Arg Phe Leu Pro Gly Pro Ala Glu Asn
35 40 45

Asn Ala Ala Cys Tyr Phe Lys Gln Ala Glu Phe Thr Asp Asp Thr Ser







Met Ala Leu Cys Leu Ala Asp Ala Ile Ile Glu Cys Glu Gly Glu Ile 70 75 Asn Pro Asp Val Ile Gly Lys His Ile Leu Asp Trp Ala Leu Asp Phe 85 90 Asp Ala Phe Asn Lys Asn Val Leu Gly Pro Thr Ser Lys Ile Ala Leu 100 105 Asn Ala Ile Arg Asp Gly Lys Pro Val Ser Gln Leu Glu Asn Asn Gly 120 Val Thr Asn Gly Ala Ala Met Arg Ala Ser Pro Leu Gly Cys Leu Leu 135 Pro Ala Thr Arg Leu Ala His Phe Val Glu Gln Val Ala Leu Ala Ser 150 155 Ser Pro Thr His Lys Ser Asp Leu Ala Ile Ala Gly Ala Val Ile 170 Ala Trp Ala Val Ser Arg Ala Ile Asp Gly Glu Arg Trp Gln Asn Ile 185 Ala Asp Ala Leu Pro Gly Ile Ala Arg Ala Ala Gln Glu Ala Asn Thr 200 Thr Thr Phe Ser Ala Ser Leu Ser Ala Arg Ile Glu Leu Ala Leu Lys 215 220 Thr Val Arg Glu Ala Asn Gly Thr Glu Ser Ala Ser Glu Gln Ile Tyr 230 235 Gln Leu Ile Gly Ala Gly Thr Ser Thr Leu Glu Ser Val Pro Ala Ala 245 250 Ile Ala Met Val Glu Leu Ala Gly Thr Asp Pro Asn Arg Cys Ala Val 260 265 270 Leu Cys Ala Asn Leu Gly Gly Asp Thr Asp Thr Ile Gly Ala Met Ala 280 285 Thr Ala Ile Cys Gly Ala Leu His Gly Val Gln Ala Ile Asp Pro Ala 295 300 Leu Lys Asn Glu Leu Asp Ala Val Asn Arg Leu Asp Phe Gly His Tyr 310 315 Cys Glu Lys Leu His Phe Arg Glu His Arg Glu Gly Val 325 330 335

<210> 6270

<211> 412

<212> PRT

<213> Enterobacter cloacae

<400> 6270

Trp Phe Ile Trp Gly Ala Trp Phe Val Pro Leu Trp Leu Trp Met Ser Lys Ser Gly Phe Thr Ala Gly Glu Ile Gly Trp Ser Tyr Ala Cys Thr Ala Ile Ala Ala Ile Leu Ser Pro Ile Met Val Gly Ser Leu Thr Asp 40 Arg Phe Phe Ala Ala Gln Lys Val Leu Ala Val Leu Met Phe Ala Gly 55 Ala Ile Leu Met Tyr Phe Ala Ala Gln Gln Ile Gln Phe Ser Thr Phe 70 75 Phe Pro Leu Leu Ala Tyr Ser Leu Thr Tyr Met Pro Thr Ile Ala , 85 90 Leu Thr Asn Ser Ile Ala Phe Ala Asn Val Asp Asp Val Glu Ala Asp 105 Phe Pro Arg Ile Arg Val Met Gly Thr Ile Gly Trp Ile Ala Ser Gly 120 Leu Ala Cys Gly Phe Leu Pro Gln Met Met Gly Tyr Ser Asp Ile Ser 135 140 Asp Thr Asn Ile Pro Leu Leu Met Thr Ala Ala Ser Ser Leu Leu

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Gly Val Phe Ala Leu Phe Leu Pro Asn Thr Pro Pro Lys Ser Thr Gly
                165
                                    170
Lys Leu Asp Phe Lys Val Met Leu Gly Leu Asp Ala Leu Ile Leu Leu
            180
                                185
Arg Asp Lys Asn Phe Leu Val Phe Phe Cys Ser Phe Leu Phe Ala
                            200
                                                205
Met Pro Leu Ala Phe Tyr Tyr Ile Phe Ala Asn Gly Tyr Leu Thr Glu
                        215
                                            220
Val Gly Met Lys Asn Ala Thr Gly Trp Met Thr Leu Gly Gln Phe Ser
                   230
                                        235
Glu Ile Phe Phe Met Leu Ala Leu Pro Phe Phe Thr Lys Arg Phe Gly
                245
                                    250
Ile Lys Lys Val Leu Leu Gly Leu Ile Thr Ala Ala Ile Arg Tyr
           260
                                265
Gly Phe Phe Val Tyr Gly Gly Ala Glu Gln Tyr Phe Thr Tyr Ala Leu
                            280
Leu Phe Leu Gly Ile Leu Leu His Gly Val Ser Tyr Asp Phe Tyr Tyr
                        295
                                            300
Val Thr Ala Tyr Ile Tyr Val Asp Lys Lys Ala Pro Val His Met Arg
                    310
                                        315
Asn Ala Ala Gln Gly Leu Ile Thr Leu Cys Cys Gln Gly Phe Gly Ser
                325
                                    330
                                                        335
Leu Leu Gly Tyr Arg Leu Gly Gly Val Met Met Glu Lys Met Phe Ala
                                345
                                                    350
Tyr Lys Glu Pro Val Asn Gly Leu Thr Phe Asn Trp Ala Gly Met Trp
                            360
                                                365
Thr Phe Gly Ala Ile Met Ile Val Val Ile Ala Val Leu Phe Met Leu
                        375
                                            380
Phe Phe Arg Glu Ser Asp Lys Glu Ile Thr Ala Ile Glu Val Val Asp
                    390
                                        395
Gly Asp Thr Ala Leu Thr Arg Gly Glu Val Lys
                405
<210> 6271
<211> 298
<212> PRT
<213> Enterobacter cloacae
<400> 6271
Thr Thr Tyr Pro Phe Gly Ser Trp Pro Ala Ser Arg Cys Val Lys Thr
                                    10
Leu Cys Leu Arg Val Ser Gly Arg Ala Leu Arg Ala Gly Gly Thr Gly
            20
                                25
Met Thr Arg Ile Asn Ala Leu Thr Ile Ala Gly Thr Asp Pro Ser Gly
Gly Ala Gly Ile Gln Ala Asp Leu Lys Thr Phe Ser Ala Leu Gly Ala
Tyr Gly Cys Ser Val Ile Thr Ala Leu Val Ala Gln Asn Thr Arg Gly
                                        75
Val Gln Ser Val Tyr Arg Ile Glu Pro Asp Phe Val Ala Ala Gln Leu
                                    90
Asp Ser Val Phe Ser Asp Val Arg Ile Asp Thr Thr Lys Ile Gly Met
                                105
Leu Ala Glu Ala Asp Ile Val Glu Ala Val Ala Glu Arg Leu Lys Arg
        115
                            120
                                                125
Tyr Gln Ile Lys Asn Val Val Leu Asp Thr Val Met Leu Ala Lys Ser
                        135
                                            140
Gly Asp Pro Leu Leu Ser Ala Ser Ala Val Asp Thr Leu Arg Lys Lys
                   150
                                       155
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Leu Leu Pro Gln Val Ala Leu Ile Thr Pro Asn Leu Pro Glu Ala Ala

Ala Leu Leu Asp Ala Pro His Ala Gln Asn Glu Arg Glu Met Lys Glu 185 180 Gln Gly Asn Ala Leu Leu Ala Met Gly Cys Arg Ala Val Leu Met Lys 195 200 205 Gly Gly His Leu Asp Asp Ala Glu Ser Pro Asp Trp Leu Phe Thr His 215 220 Asp Gly Ala Gln Arg Phe Thr Ala Pro Arg Val Gln Thr Lys Asn Thr 230 235 His Gly Thr Gly Cys Thr Leu Ser Ala Ala Leu Ala Ala Leu Arg Pro 245 250 Arg Asn Ala Asn Trp Ala Asp Thr Val Gln Glu Ala Lys Ile Trp Leu 260 265 Ser Asp Ala Leu Ala Lys Ala Asp Ser Leu Glu Val Gly His Gly Ile 280 Gly Pro Val His His Phe His Ala Trp Trp

<210> 6272

<211> 263

<212> PRT

<213> Enterobacter cloacae

<400> 6272

Ala Val Tyr Trp His Lys Thr Leu Cys Gln Arg Lys Thr Glu Met Glu 10 Gln Ala His Thr Arg Leu Ile Ala Gln Leu Lys Glu Arg Ile Ala Ala 20 Pro Asp Asn Thr Pro Leu Tyr Leu Lys Phe Ala Glu Thr Val Lys Asn 40 Ala Val Arg Ser Gly Val Leu Ala His Gly Asn Ile Leu Pro Gly Glu 55 Arg Asp Leu Ser Gln Leu Ala Gly Val Ser Arg Ile Thr Val Arg Lys 75 70 Ala Met Gln Ala Leu Glu Glu Ala Gly Val Val Thr Arg Ala Arg Gly 90 85 Tyr Gly Thr Gln Ile Asn Asn Ile Phe Glu Tyr Ser Leu Lys Glu Ala 105 110 Arg Gly Phe Ser Gln Gln Val Val Leu Arg Gly Lys Thr Pro Asn Thr 115 120 125 Leu Trp Val Asn Lys Arg Val Val Lys Cys Pro Glu Glu Ile Ala Arg 135 140 His Leu Ser Leu Ala Pro Asp Ser Asp Val Phe Leu Leu Lys Arg Ile 150 155 Arg Tyr Val Asp Asp Asp Ala Val Ser Ile Glu Glu Ser Trp Val Pro 165 170 Val Gly Leu Ile Pro Asn Pro Asp Asp Ile Gly Val Ser Leu Tyr Asp 185 Tyr Phe Arg Ser Gln Asn Ile Phe Pro Gln Arg Thr Arg Ser Arg Val 200 Ser Ala Arq Met Pro Asp Ser Glu Phe Gln Ala His Ile Lys Met Asp 215 220 Asp Lys Ile Pro Val Leu Val Ile Lys Gln Val Ala Leu Asp Gln Gln 230 235 His Arg Pro Ile Glu Tyr Ser Ile Ser Tyr Cys Arg Ser Asp Leu Tyr 250 245 Val Phe Val Cys Glu Glu

<210> 6273

260

<211> 543

<212> PRT

## <213> Enterobacter cloacae

<400> 6273 Thr Asn Ile Met Asn Thr Thr Pro Glu Leu His Cys Asp Val Leu Ile 10 Ile Gly Ser Gly Ala Ala Gly Leu Ser Leu Ala Leu Arg Leu Ala Glu 25 His Gln Asn Val Ile Val Leu Ser Lys Gly Pro Met Ser Glu Gly Ser 40 Thr Phe Tyr Ala Gln Gly Gly Ile Ala Ala Val Phe Asp Glu Thr Asp 55 60 Ser Ile Ala Ser His Val Glu Asp Thr Leu Ile Ala Gly Ala Gly Ile 70 75 Val Asp Glu His Ala Ala Glu Phe Val Ala Ser Asn Ala Arq His Cys 90 Val Gln Trp Leu Ile Asp Gln Gly Val Leu Phe Asp Thr Gln Val Gln 105 Pro Asn Gly Glu Glu Ser Tyr His Leu Thr Arg Glu Gly Gly His Ser 120 His Arg Arg Ile Leu His Ala Ala Asp Ala Thr Gly Lys Ala Val Glu 135 140 Thr Thr Leu Val Ser Lys Ala Leu Ser His Pro Asn Ile Arg Val Leu 150 155 Glu Arg Ser Asn Ala Val Asp Leu Ile Ile Ser Asp Lys Ile Gly Leu 170 165 Pro Gly Thr Arg Arg Val Val Gly Ala Trp Val Trp Asn Arg Asn Lys 185 Glu Lys Val Glu Thr Cys Gln Ala Lys Ala Val Val Leu Ala Thr Gly 200 Gly Ala Ser Lys Val Tyr His Tyr Thr Thr Asn Pro Asp Ile Ala Ser 215 220 Gly Asp Gly Ile Ala Met Ala Trp Arg Ala Gly Cys Arg Val Ala Asn 230 235 Leu Glu Phe Asn Gln Phe His Pro Thr Ala Leu Phe His Pro Gln Ala 245 250 Arg Asn Phe Leu Leu Thr Glu Ala Leu Arg Gly Glu Gly Ala Tyr Leu 265 Lys Arg Pro Asp Gly Ser Arg Phe Met Pro Asp Phe Asp Pro Arg Gly 275 280 285 Glu Leu Ala Pro Arg Asp Ile Val Ala Arg Ala Ile Asp His Glu Met 295 300 Lys Arg Leu Gly Val Asp Cys Met Tyr Leu Asp Ile Ser His Lys Pro 310 315 Ala Asp Phe Ile Arg Gln His Phe Pro Met Ile Tyr Glu Lys Leu Leu 325 330 Ser Leu Gly Ile Asp Leu Thr Arg Asp Pro Val Pro Ile Val Pro Ala 345 340 Ala His Tyr Thr Cys Gly Gly Val Met Val Asp Asp His Gly Arg Thr 360 Asp Val Asp Gly Leu Tyr Ala Ile Gly Glu Val Ser Tyr Thr Gly Leu 375 380 His Gly Ala Asn Arg Met Ala Ser Asn Ser Leu Leu Glu Cys Leu Val 390 395 Tyr Gly Trp Ser Ala Ala Glu Asp Ile Thr Lys Arg Met Pro Tyr Ala 410 Arg Pro Thr Thr His Leu Pro Ala Trp Asp Glu Ser Arg Val Glu Asn 425 Pro Asp Glu Leu Val Val Ile Gln His Asn Trp His Glu Leu Arg Leu 440 445 . Phe Met Trp Asp Tyr Val Gly Ile Val Arg Thr Thr Lys Arg Leu Glu 455

 Arg
 Ala
 Leu
 Arg
 Arg
 Met
 Met
 Leu
 Gln
 Glu
 Ile
 Asp
 Glu
 Tyr
 480

 Tyr
 Ala
 Asn
 Phe
 Arg
 Val
 Ser
 Asn
 Asn
 Leu
 Glu
 Leu
 Arg
 Asn
 Leu
 Arg
 Cys
 Ala
 Met
 Met
 Arg
 Lys
 Glu
 Glu
 Glu
 Frag
 Frag
 Glu
 Frag
 <210> 6274

<211> 444

<212> PRT

<213> Enterobacter cloacae

<400> 6274

Asn Met Thr Val Thr Thr Phe Ser Glu Leu Glu Leu Asp Glu Ser Leu 10 Leu Asn Ala Leu Glu Ser Lys Gly Phe Thr Arg Pro Thr Ala Ile Gln 20 25 30 Ala Ala Ile Pro Pro Ala Leu Glu Gly Arg Asp Val Leu Gly Ser 40 Ala Pro Thr Gly Thr Gly Lys Thr Ala Ala Tyr Leu Leu Pro Val Leu 55 Gln His Leu Leu Asp Phe Pro Arg Lys Lys Ser Gly Pro Pro Arg Ile 75 70 Leu Ile Leu Thr Pro Thr Arg Glu Leu Ala Met Gln Val Ala Glu His 90 Ala Arg Glu Leu Ala Ala Asn Thr His Leu Asp Ile Ala Thr Ile Thr 100 105 Gly Gly Val Ala Tyr Met Asn His Ala Glu Val Phe Ser Glu Asn Gln 115 120 Asp Ile Val Val Ala Thr Thr Gly Arg Leu Leu Gln Tyr Ile Lys Glu 135 140 Glu Asn Phe Asp Cys Arg Ala Val Glu Thr Leu Ile Leu Asp Glu Ala 150 155 Asp Arg Met Leu Asp Met Gly Phe Ala Gln Asp Ile Glu His Ile Ala 170 Gly Glu Thr Arg Trp Arg Asn Gln Thr Met Leu Phe Ser Ala Thr Leu 180 185 Glu Gly Asp Ala Ile Lys Asp Phe Ala Glu Arg Leu Glu Asp Pro 200 195 Val Glu Val Ser Ala Thr Pro Ser Thr Arg Glu Arg Lys Lys Ile His 215 Gln Trp Tyr Tyr Arg Ala Asp Asn Leu Glu His Lys Val Glu Leu Leu 230 235 Lys His Leu Leu Lys Gln Glu Glu Ala Thr Arg Thr Ile Val Phe Val 250 245 Arg Lys Arg Glu Arg Val His Glu Leu Ala Glu Met Leu Arg Asn Ala 265 Gly Ile Asn Asn Cys Tyr Leu Glu Gly Glu Met Ala Gln Val Lys Arg 280 Thr Glu Gly Ile Lys Arg Leu Thr Asp Gly Arg Val Asn Val Leu Val 300 295 Ala Thr Asp Val Ala Ala Arg Gly Ile Asp Ile Pro Asp Val Ser His 310 315 Val Ile Asn Phe Asp Met Pro Arg Ser Gly Asp Thr Tyr Leu His Arg 325 330 Ile Gly Arg Thr Gly Arg Ala Gly Arg Lys Gly Ile Ala Ile Ser Leu 345

Val Glu Ala His Asp His Leu Leu Gln Lys Ile Gly Arg Tyr Val 360 365 Glu Glu Pro Leu Lys Ala Arg Val Ile Asp Gly Leu Arg Pro Thr Thr 375 380 Arg Ala Pro Ser Glu Lys Met Thr Gly Lys Pro Ser Lys Lys Ala Leu 390 395 Ala Lys Arg Ala Glu Arg Lys Glu Lys Glu Lys Bro Arg Val 405 410 Lys Gln Arg His Arg Asp Thr Lys Asn Ile Gly Lys Arg Arg Lys Pro 420 425 430 Ser Ser Ala Ala Ser Glu Thr Lys Thr Glu Glu 435 440 <210> 6275 <211> 132 <212> PRT <213> Enterobacter cloacae <400> 6275 Gly Arg Gln His Met Ile Thr Gly Ile Gln Ile Thr Lys Ala Ala Asn Asp Asp Leu Leu Asn Ser Phe Trp Leu Leu Asp Ser Glu Lys Asn Glu Ala Arg Cys Val Val Ala Lys Ala Gly Phe Ala Glu Asp Glu Ile Val 35 Pro Val Ser Lys Leu Gly Glu Ile Glu Tyr Arg Glu Ile Pro Met Gln Val Gln Pro Glu Val Arg Val Glu Gly Gly Gln His Leu Asn Val Asn 70 Val Leu Arg Arg Glu Thr Leu Met Asp Ala Val Glu His Pro Glu Lys Tyr Pro Gln Leu Thr Ile Arg Val Ser Gly Tyr Ala Val Arg Phe Asn 105 Ser Leu Thr Pro Glu Gln Gln Arg Asp Val Ile Ala Arg Thr Phe Thr 115 120 Glu Ser Leu 130 <210> 6276 <211> 363 <212> PRT <213> Enterobacter cloacae <400> 6276 Phe Phe Thr Arg Lys Val Glu Gln Met Leu Gln His Arg Gln Gln Val 10 Gly Cys Cys Leu Pro Arg Ala Gly Trp Arg Arg Thr Glu His Ile Ala 25 Ala Leu Lys Arg Arg Arg Asn Gly Arg Gly Leu Asn Gly Gly Arg Ala 40 Cys Lys Ala Phe Ala Leu Lys Gly Ile Glu Gln Ala Phe Ile Glu Phe Lys Phe Gly Lys Ser Arg Tyr Ser His Val Leu Pro Leu Cys Gly Ala Leu Ile Ile Asp Val Thr Ala Val Ile Phe Ile Cys Leu Tyr Gly Tyr 85 90 Arg Phe Ser Thr Thr Ser Leu Ser Pro Met Leu Leu Gln Phe His Ser 105 Glu Gly Cys Pro Asp Met Ser Gln Leu Lys Ala Gln Leu Arg Arg Asp

115 120 125
Gly Phe Thr Phe Lys Gln Phe Phe Val Ala His Asp Arg Cys Ala Met

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135
                                            140
Lys Val Gly Thr Asp Gly Ile Leu Leu Gly Ala Trp Ala Pro Val Ala
                   150
                                       155
Gly Val Lys Arg Ile Leu Asp Ile Gly Thr Gly Ser Gly Leu Gln Ala
               165
                                    170
Leu Met Leu Ala Gln Arg Thr Glu Glu His Val Thr Ile Asp Ala Val
                               185
                                                    190
           180
Glu Leu Asp Pro Gln Ala Ala Arg Gln Ala Ser Glu Asn Ala Ala Asp
                           200
       195
                                               205
Ser Pro Trp Ala Glu Arg Ile Arg Val Glu Cys Ala Asp Val Leu Thr
                        215
                                           220
Trp Ala Pro Glu Gln Thr Ala Arg Tyr Asp Leu Ile Val Ser Asn Pro
                   230
                                        235
Pro Tyr Phe Thr Pro Gly Val Glu Cys Gly Thr Pro Glu Arg Glu Gln
                                    250
Ala Arg Tyr Thr Gly Ser Leu Asp His Lys Ala Leu Leu Thr Ser Ala
                                265
Ala Glu Leu Ile Ser Glu Glu Gly Phe Phe Cys Val Val Leu Pro Glu
                            280
Ser Thr Gly Asn Thr Phe Ile Glu Ile Ala His Glu Ile Gly Trp Asn
                        295
Leu Arg Leu Arg Thr Asp Ile Ser Asp Thr Glu Gly Arg Leu Pro His
                    310
                                        315
Arg Val Leu Leu Ala Leu Ser Pro Lys Glu Gly Glu Cys Phe Ile Asp
                                    330
                325
Arg Met Val Ile Arg Gly Pro Asp Gln Arg Tyr Ser Glu Asp Tyr Thr
                                345
Ala Leu Thr Gln Ala Phe Tyr Leu Phe Met
<210> 6277
<211> 138
<212> PRT
<213> Enterobacter cloacae
<400> 6277
Ser Gly Val Ser Ile Thr Arg Gly Ile Trp Phe Gly Glu Thr Leu Pro
                                    10
Arg Met Ser Glu Gln Leu Thr Asp Gln Val Leu Val Glu Arg Val Gln
                                25
Lys Gly Asp Gln Lys Ala Phe Asn Leu Leu Val Val Arg Tyr Gln His
        35
                            40
Lys Val Ala Ser Leu Val Ser Arg Tyr Val Pro Ser Gly Asp Val Pro
                        55
Asp Val Val Gln Glu Ser Phe Ile Lys Ala Tyr Arg Ala Leu Asp Ser
                    70
                                        75
Phe Arg Gly Asp Ser Ala Phe Tyr Thr Trp Leu Tyr Arg Ile Ala Val
                                    90
Asn Thr Ala Lys Asn Tyr Leu Val Ala Gln Gly Arg Arg Pro Pro Ser
                                105
Ser Asp Val Asp Ala Ile Asp Ala Glu Asn Phe Glu Ser Gly Gly Ala
                            120
Leu Lys Glu Ile Ser Asn Pro Asp Asn Leu
   130
                        135
<210> 6278
<211> 305
<212> PRT
<213> Enterobacter cloacae
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<400> 6278

```
Tyr Val Phe Ile Thr Lys Thr Glu Arg Cys Phe Val Ile Tyr Leu Cys
                                    10
Leu Arg Ala Arg Ser Ile Leu Glu Val Tyr Val Asp Val Arg Gln Ser
                                25
Ile His Ser Ala His Ala Lys Met Leu Asp Thr Gln Gly Leu Arg Ser
                            40
Glu Phe Leu Val Glu Gln Val Phe Glu Ala Asp Lys Tyr Thr Met Val
Tyr Ser His Ile Asp Arg Ile Ile Val Gly Gly Ile Met Pro Val Ala
                                        75
Lys Thr Val Ser Val Gly Gly Glu Val Gly Lys Gln Leu Gly Val Ser
                85
Tyr Phe Leu Glu Arg Arg Glu Leu Gly Val Ile Asn Ile Gly Gly Pro
                                105
Gly Thr Ile Thr Val Asp Gly Gln Cys Tyr Glu Ile Gly His Arg Asp
                            120
                                                125
Ala Leu Tyr Val Gly Lys Gly Ala Lys Glu Val Val Phe Ala Ser Ser
                        135
                                            140
Asp Ala Ser Lys Pro Ala Lys Phe Tyr Tyr Asn Cys Ala Pro Ala His
                                        155
                    150
Thr Thr Tyr Pro Thr Lys Lys Val Thr Pro Ala Asp Val Ala Pro Val
                                    170
                165
Thr Leu Gly Asp Asn Leu Thr Ser Asn Arg Arg Thr Ile Asn Lys Tyr
            180
                                185
Phe Val Pro Asp Val Leu Glu Thr Cys Gln Leu Ser Met Gly Leu Thr
                            200
Glu Leu Ala Pro Gly Asn Leu Trp Asn Thr Met Pro Cys His Thr His
                        215
                                             220
Glu Arg Arg Met Glu Val Tyr Phe Tyr Phe Asn Met Asp Glu Asp Ala
                                        235
                    230
Cys Val Phe His Met Met Gly Gln Pro Gln Glu Thr Arg His Ile Val
                245
                                    250
Met His Asn Glu Gln Ala Val Ile Ser Pro Ser Trp Ser Ile His Ser
                                265
Gly Val Gly Thr Lys Ala Tyr Thr Phe Ile Trp Gly Met Val Gly Glu
        275
                            280
Asn Gln Val Phe Asp Asp Met Asp His Val Ala Val Lys Asp Leu Arg
    290
                        295
                                             300
```

305

<210> 6279 <211> 257 <212> PRT

<213> Enterobacter cloacae

<400> 6279

Asp Asp Val Met Asn Leu Asn Ile Lys Ser Val Phe Phe Met Ser Gln 115 120 Ala Ala Ala Lys His Phe Ile Ala Gln Gly Lys Gly Gly Lys Ile Ile 135 140 Asn Ile Ala Ser Met Leu Ser Phe Gln Gly Gly Ile Arg Val Pro Ser 150 155 Tyr Thr Ala Ser Lys Ser Ala Val Met Gly Val Thr Arg Leu Leu Ala 165 170 Asn Glu Trp Ala Gln His Asn Ile Asn Val Asn Ala Ile Ala Pro Gly 180 185 Tyr Met Ala Thr Asn Asn Thr Gln Gln Leu Arg Ala Asp Glu Glu Arg 200 Ser Ala Ala Ile Leu Glu Arg Ile Pro Ala Gly Arg Trp Gly Leu Pro 215 220 Ser Asp Leu Met Gly Pro Val Val Phe Leu Ala Ser Pro Ala Ser Asp 230 235 Tyr Ile Asn Gly Tyr Thr Val Ala Val Asp Gly Gly Trp Leu Ala Arg 245 250

<210> 6280 <211> 519 <212> PRT <213> Enterobacter cloacae <400> 6280 Arg Ile Ser Leu Leu Arg Gln Glu Thr Met Thr Ser Val Asn Asp Ser 10 Thr Leu Met Pro Ala Ala Leu Arg Asp Thr Arg Arg Met Asn Gln Phe 25 Val Ser Val Ala Ala Ala Val Ala Gly Leu Leu Phe Gly Leu Asp Ile Gly Val Ile Ala Gly Ala Leu Pro Phe Ile Thr Asp His Phe Thr Leu 55 60 Ser Asn Arg Leu Gln Glu Trp Val Val Ser Ser Met Met Leu Gly Ala 75 Ala Ile Gly Ala Leu Phe Asn Gly Trp Leu Ser Phe Arg Leu Gly Arg 85 90 Lys Tyr Ser Leu Met Val Gly Ala Ile Leu Phe Val Ala Gly Ser Leu 100 105 110 Gly Ser Ala Phe Ala Thr Asn Val Glu Val Leu Leu Ser Arg Val 120 Leu Leu Gly Val Ala Val Gly Ile Ala Ser Tyr Thr Ala Pro Leu Tyr 135 Leu Ser Glu Met Ala Ser Glu Asn Val Arg Gly Lys Met Ile Ser Met 150 Tyr Gln Leu Met Val Thr Leu Gly Ile Val Leu Ala Phe Leu Ser Asp 170 Thr Tyr Phe Ser Tyr Ser Gly Asn Trp Arg Ala Met Leu Gly Val Leu 185 190 Ala Leu Pro Ala Val Leu Leu Ile Val Leu Val Ile Phe Leu Pro Asn 195 200 Ser Pro Arg Trp Leu Ala Gln Lys Gly Arg His Val Glu Ala Glu Glu 215 220 Val Leu Arg Met Leu Arg Asp Thr Ser Glu Lys Ala Arg Glu Glu Leu 230 235 Asn Glu Ile Arg Glu Ser Leu Lys Leu Lys Gln Gly Gly Trp Ser Leu 245 250 Phe Lys Ala Asn Arg Asn Val Arg Arg Ala Val Phe Leu Gly Met Leu 265

Leu Gln Ala Met Gln Gln Phe Thr Gly Met Asn Ile Ile Met Tyr Tyr 280 Ala Pro Arg Ile Phe Lys Met Ala Gly Phe Thr Thr Glu Gln Gln 295 300 Met Ile Ala Thr Leu Val Val Gly Leu Thr Phe Met Phe Ala Thr Phe 310 315 Ile Ala Val Phe Thr Val Asp Lys Ala Gly Arg Lys Pro Ala Leu Lys 330 325 Ile Gly Phe Ser Val Met Ala Leu Gly Thr Leu Ile Leu Gly Tyr Cys 340 345 Leu Met Gln Phe Asp Asn Gly Thr Ala Ser Ser Gly Leu Ser Trp Leu 360 Ser Val Gly Met Thr Met Met Cys Ile Ala Gly Tyr Ala Met Ser Ala 380 375 Ala Pro Val Val Trp Ile Leu Cys Ser Glu Ile Gln Pro Leu Lys Cys 390 395 Arg Asp Phe Gly Ile Thr Cys Ser Thr Thr Thr Asn Trp Val Ser Asn 410 405 Met Ile Ile Gly Ala Thr Phe Leu Thr Leu Leu Asp Ala Ile Gly Ala 420 425 Ala Gly Thr Phe Trp Leu Tyr Thr Val Leu Asn Val Ala Phe Ile Gly 440 Val Thr Phe Lys Leu Ile Pro Glu Thr Lys Gly Val Asn Pro Gly Thr 455 460 Tyr Leu Asn Ala Thr Leu Lys Lys Met Gly Lys Thr Pro Val Ile Ser 470 475 Gly Phe Tyr Val Ile Ala Arg Gly Val Pro Pro Thr Phe Arg Gly Ala 485 490 Leu Leu Pro Phe Ala Pro Ser Val Thr Thr Leu Val Ser Ala Cys Ser 500 505 Pro Gln His Phe Ser Ser 515

<210> 6281 <211> 247 <212> PRT

<213> Enterobacter cloacae

<400> 6281

Phe Ser Thr Tyr Ile Thr Arg Ser Lys Glu Cys Ile Met Ala Lys Gly Met Arg Val Lys Leu Asn Tyr Glu Val Ser Arg Asp Pro Asp Thr Gly 25 Val Glu Val Thr Arg Leu Thr Pro Pro Glu Val Thr Cys His Arg Asn 40 4.5 Tyr Phe Tyr Gln Lys Cys Phe Phe Asn Asp Gly Ser His Leu Leu Phe 55 Ala Gly Glu Phe Asp Gly His Trp Asn Tyr Tyr Leu Leu Asp Leu Lys 70 75 Asn Ala Glu Ala Val Gln Leu Thr Glu Gly Ala Gly Asp Asn Thr Phe 90 Gly Gly Phe Leu Ser Pro Asp Asp Lys Ser Leu Tyr Tyr Val Lys Asn 105 100 Asp Arg Thr Leu Leu Glu Val Asp Leu Gln Thr Leu Ala Glu Arg Glu 120 125 Val Tyr Arg Val Pro Glu Glu Trp Val Gly Tyr Gly Thr Trp Val Ala 135 140 Asn Ser Asp Cys Thr Lys Leu Val Gly Ile Glu Ile Ala Arg Cys Asp 150 155 Trp Thr Pro Leu Asn Asp Trp Lys Ile Phe His Asp Phe Phe His Lys 170

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Gly Pro His Cys Arg Leu Leu Arg Val Asp Leu Lys Thr Gly Glu Ser
            180
                                185
                                                     190
Thr Thr Ile His Asp Glu Lys Ile Trp Leu Gly His Pro Ile Tyr Arg
                            200
        195
                                                 205
Pro Phe Asp Asp Asn Thr Val Ala Phe Cys His Glu Gly Pro His Asp
                        215
                                            220
Leu Val Asp Ala Arg Met Trp Leu Val Asn Glu Asp Gly Ser Asn Val
                    230
                                         235
Arg Lys Val Lys Thr His Ala
                245
<210> 6282
<211> 287
<212> PRT
<213> Enterobacter cloacae
<400> 6282
Tyr Gly Leu Asp Pro Ala Thr Gly Pro Ile Gly Arg Pro Ala Met Val
Ser Lys Lys Lys Thr Arg Val Val Asp Asp Val Val Lys Asn Ala Pro
            20
                                25
Leu Lys Thr Lys Thr Tyr Glu Gln Glu Leu Arg Arg Leu His Val Glu
                            40
Leu Val Lys Leu Gln Gln Trp Val Val Ala Lys Gly Leu Lys Val Cys
                        55
Ile Val Phe Glu Gly Arg Asp Gly Ala Gly Lys Gly Gly Val Ile Lys
                    70
                                         75
Ala Ile Thr Glu Arg Val Ser Pro Arg Val Phe Arg Val Val Ala Leu
                85
                                     90
Pro Ala Pro Thr Asp Lys Glu Lys Ser Gln Leu Tyr Phe Gln Arg Tyr
            100
                                105
Val Pro His Leu Pro Ser Ala Gly Glu Ile Val Ile Phe Asp Arg Ser
                            120
Trp Tyr Asn Arg Ala Gly Val Glu Lys Val Met Gly Phe Cys Thr Glu
    130
                        135
                                            140
Glu Gln Ala Glu Lys Phe Leu Asp Gly Thr Pro Val Met Glu Lys Ala
                    150
                                         155
Met Val Asp Ala Gly Ile Ile Leu Leu Lys Tyr Trp Leu Glu Val Thr
                165
                                    170
Pro Lys Glu Glu Arg Arg Leu Arg Asp Arg Ile Asn Asp Gly Arg
            180
                                185
                                                     190
Lys Ile Trp Lys Leu Ser Pro Met Asp Ile Lys Ser Phe Asn Leu Trp
                            200
Asp Glu Tyr Thr Leu Ala Arg Asp Ala Met Phe Lys Ala Thr Asp Thr
                        215
                                             220
Ala Trp Ala Pro Trp Phe Val Ala Arg Ser Glu Asp Lys Lys Arg Val
                    230
                                         235
Arg Leu Asn Ile Ile Ser His Leu Leu Ser Gln Ile Pro Tyr Lys Glu
                245
                                    250
Ile His Val Asp Lys Val Asp Leu Pro Lys Arg Lys Ile Gly Lys Val
                                                     270
                                265
Lys Pro Thr Lys Tyr Pro Phe Arg Tyr Ile Ala Glu Arg Phe
                            280
<210> 6283
<211> 310
<212> PRT
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<400> 6283

<213> Enterobacter cloacae

Arg Ile Asp Ala Ile Ser Phe Pro Phe Asp Phe Leu Lys Thr Gly Arg

```
Val Met Asp Arg Lys Arg Ala Thr Leu Thr Gly Leu Ala Ala Ile Leu
Leu Trp Ser Thr Met Val Gly Leu Ile Arg Ser Val Ser Glu Gly Leu
                           40
Gly Pro Val Gly Gly Ala Ala Met Ile Tyr Thr Val Ser Gly Leu Leu
                       55
Cys Leu Val Thr Val Gly Phe Pro Asp Leu Arg Arg Phe Ser Arg Arg
                . 70
                                       75
Tyr Leu Phe Ala Gly Ser Ile Leu Phe Val Ser Tyr Glu Met Cys Leu
               85
                                    90
Ala Leu Ser Leu Gly Tyr Ala Ala Thr Arg Ser Gln Ala Ile Glu Val
           100
                               105
Gly Met Val Asn Tyr Leu Trp Pro Ser Leu Thr Ile Ala Phe Ala Ile
                 · 120
                                               125
Leu Phe Asn Gly Gln Lys Ser Thr Leu Trp Val Ile Pro Gly Leu Leu
                       135
                                           140
Ile Ser Leu Gly Val Cys Trp Val Leu Gly Gly Glu Asn Gly Leu
                   150
                                       155
Gln Leu Asn Asp Ile Met Gln Asn Val Val Ser Ser Pro Leu Ser Tyr
                                   170
Gly Leu Ala Phe Ala Gly Ala Phe Ile Trp Ala Ala Tyr Cys Thr Val
                               185
Thr Ser Lys Tyr Ala Lys Gly Gln Asn Gly Ile Thr Leu Phe Val Leu
                           200
Leu Thr Ala Leu Ser Leu Trp Val Lys Tyr Ala Val Ser Asp Gln Pro
                       215
Glu Met Val Phe Ser Val Pro Val Val Val Lys Leu Leu Met Cys Gly
                   230
                                        235
Val Ala Leu Gly Phe Gly Tyr Ala Ala Trp Asn Ile Gly Ile Leu His
               245
                                    250
Gly Asn Val Thr Val Leu Ala Ala Val Ser Tyr Phe Thr Pro Val Leu
                                265
Ser Ala Ala Leu Ala Ala Ile Val Leu Ser Ser Pro Leu Ser Phe Ser
                           280
                                               285
       275 .
Phe Trp Gln Gly Ala Leu Met Val Cys Ala Gly Ser Leu Leu Cys Trp
                       295
Tyr Ala Thr Arg Lys
305
                   310
<210> 6284
<211> 177
<212> PRT
<213> Enterobacter cloacae
<400> 6284
Gly Leu Phe Lys Met Lys Leu Lys Leu Val Ala Val Ala Val Thr Ser
Met Leu Ala Ala Gly Val Val Asn Ala Ala Glu Val Phe Asn Lys Asp
Gly Asn Lys Leu Asp Leu Tyr Gly Lys Val Thr Gly Leu His Tyr Phe
Ser Asp Asp Ala Gly Ser Asp Gly Asp Lys Thr Tyr Val Arg Leu Gly
                       55
Phe Lys Gly Glu Thr Gln Ile Asn Asp Gln Leu Thr Gly Tyr Gly Gln
                                       75
Trp Glu Tyr Glu Phe Lys Gly Asn Arg Ser Glu Ala Gln Gly Ser Asp
                                    90
Gly Asn Lys Thr Arg Leu Ala Tyr Ala Gly Leu Lys Phe Asp Glu Phe
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100 105 110 Gly Ser Phe Asp Tyr Gly Arg Asn Tyr Gly Val Ala Tyr Asp Ile Gly

115 120 Ala Trp Thr Asp Val Leu Pro Glu Phe Gly Gly Asp Thr Trp Thr Gln 135 140 Thr Asp Gly Phe Met Thr Gly Arg Thr Thr Gly Val Ala Thr Tyr Arg 155 150 Asn Thr Asp Phe Phe Gly Leu Val Asp Gly Leu Asn Val Ala Ala Gln 170 Tyr <210> 6285 <211> 94 <212> PRT <213> Enterobacter cloacae <400> 6285 Phe Asp Ala Ile Lys Lys Gly Ala Leu Leu Val Cys Arg Ala Lys Ser Tyr Gln Ile Thr Arg Thr Thr Met Asp Val Ser Arg Arg Gln Phe 25 Phe Lys Ile Cys Ala Gly Gly Met Ala Gly Thr Thr Ala Ala Met Leu Gly Phe Ala Pro Lys Met Ala Leu Ala Gln Ala Arg Asn Tyr Lys Leu 55 Leu Arg Ala Lys Glu Ile Arg Asn Thr Cys Thr Tyr Cys Ser Val Gly 70 75 Cys Gly Leu Leu Met Tyr Ser Leu Gly Asp Gly Ala Lys <210> 6286 <211> 111 <212> PRT <213> Enterobacter cloacae <400> 6286 Ser Arg Gly Ala Leu Cys Pro Glu Arg Gly Gly Ala Val Gly Leu Arg 10 Ser Thr Val Lys Thr Val Leu Arg Tyr Pro Glu Tyr Arg Ala Pro Gly 20 25 Ser Asp Lys Trp Gln Arg Ile Ser Trp Asp Asp Ala Phe Ser Arg Ile Ala Lys Leu Met Lys Ala Asp Arg Asp Ala Asn Phe Ile Glu Lys Asn 55 Glu Gln Gly Ile Thr Val Asn Arg Trp Thr Ser Thr Gly Met Leu Cys 75 80 Ala Ser Ala Ala Ser Asn Glu Thr Gly Met Leu Thr Gln Lys Phe Val 90 . Arg Ser Leu Gly Met Leu Ala Val Asp Asn Gln Ala Arg Val 100 105 <210> 6287 <211> 820 <212> PRT <213> Enterobacter cloacae <400> 6287 His Gly Pro Thr Val Ala Ser Leu Ala Pro Thr Phe Gly Arg Gly Ala 10 Met Thr Asn His Trp Val Asp Ile Lys Asn Ala Asn Val Val Val 25 Met Gly Gly Asn Ala Ala Glu Ala His Pro Val Gly Phe Arg Trp Ala

40 45 Met Glu Ala Lys Asn Asn Asn Asp Ala Thr Leu Ile Val Val Asp Pro 55 60 Arg Phe Thr Arg Thr Ala Ser Val Ala Asp Ile Tyr Ala Pro Ile Arg 75 70 Ser Gly Thr Asp Ile Thr Phe Leu Ser Gly Val Leu Leu Tyr Leu Ile 85 90 Glu Asn Asn Lys Ile Asn Ala Glu Tyr Val Lys His Tyr Thr Asn Ala 100 105 Ser Leu Leu Val Arg Glu Asp Phe Ala Phe Glu Asp Gly Leu Phe Ser 120 125 Gly Tyr Asp Ala Glu Lys Arg Gln Tyr Asp Lys Ser Ser Trp Asn Tyr 135 140 Gln Phe Asp Glu Asn Gly Tyr Ala Lys Arg Asp Glu Thr Leu Ser Asp 150 155 Pro His Cys Val Trp Asn Leu Leu Lys Gln His Val Ser Arg Tyr Thr 165 170 Pro Asp Val Val Glu Asn Ile Cys Gly Thr Pro Lys Ala Asp Phe Leu 185 180 Lys Val Cys Glu Val Leu Ala Ser Thr Ser Ala Ala Asp Arg Thr Thr 200 205 195 Thr Phe Leu Tyr Ala Leu Gly Trp Thr Gln His Thr Val Gly Ala Gln 215 220 Asn Ile Arg Thr Met Ala Met Ile Gln Leu Leu Gly Asn Met Gly 235 230 Met Ala Gly Gly Val Asn Ala Leu Arg Gly His Ser Asn Ile Gln 245 250 Gly Leu Thr Asp Leu Ser Leu Ser Thr Ser Leu Pro Gly Tyr Leu 265 260 Thr Leu Pro Ser Glu Lys Gln Thr Asp Trp Gln Ser Trp Leu Asp Ala 280 Asn Thr Pro Lys Ala Thr Arg Pro Asp Gln Val Asn Tyr Trp Ser Asn 295 300 Tyr Pro Lys Phe Ala Val Ser Leu Met Lys Ser Phe Tyr Gly Asp Ala 310 315 Ala Gln Lys Glu Asn Asp Trp Gly Phe Glu Trp Leu Pro Lys Trp Asp 330 325 Gln Ala Tyr Asp Val Ile Lys Tyr Phe Asn Met Met Asp Lys Gly Asp 340 345 Val Thr Gly Tyr Ile Cys Gln Gly Phe Asn Pro Val Ala Ser Phe Pro 360 Asp Lys Asn Lys Val Val Arg Ser Leu Ser Lys Leu Lys Tyr Met Val 370 375 380 Val Ile Asp Pro Leu Val Thr Glu Thr Ser Thr Phe Trp Gln Asn His 390 395 Gly Glu Ser Asn Asp Val Asp Pro Ala Ser Ile Gln Thr Glu Val Phe 410 Arg Leu Pro Ser Thr Cys Phe Ala Glu Glu Asp Gly Ser Ile Ala Asn 425 Ser Gly Arg Trp Leu Gln Trp His Trp Lys Gly Gln Asp Ala Pro Gly 440 445 Glu Ala Arg Asn Asp Gly Glu Ile Leu Ala Gly Ile Tyr His Arg Leu 455 460 Arg Glu Met Tyr Arg Thr Glu Gly Gly Lys Gly Ala Glu Pro Leu Leu 475 470 Lys Met Ser Trp Asn Tyr Lys Gln Pro Asp His Pro Glu Ser Glu Glu 490 485 Val Ala Lys Glu Asn Asn Gly Val Ala Leu Ala Asp Leu Tyr Asp Ala 500 505 510 Asn Gly Asn Leu Val Ala Lys Lys Gly Gln Leu Leu Asn Ser Phe Ala 520

Leu Leu Arg Asp Asp Gly Thr Thr Ala Ser Ser Cys Trp Ile Tyr Thr 535 Gly Ser Trp Thr Glu Gln Gly Asn Gln Met Ala Asn Arg Asp Asn Ala 550 555 Asp Pro Ser Gly Leu Gly Asn Thr Leu Gly Trp Ala Trp Ala Trp Pro 565 570 Leu Asn Arg Arg Val Leu Tyr Asn Arg Ala Ser Ala Asp Val Asn Gly 580 585 Lys Pro Trp Asp Pro Lys Arg Met Leu Ile Glu Trp Asn Gly Thr Lys 600 605 Trp Thr Gly Asn Asp Ile Pro Asp Phe Asn Thr Ala Ala Pro Gly Ser 615 620 Asn Thr Gly Pro Phe Ile Met Gln Pro Glu Gly Leu Gly Arg Leu Phe 630 635 Ala Ile Asp Lys Leu Ala Glu Gly Pro Phe Pro Glu His Tyr Glu Pro 645 650 Met Glu Thr Pro Leu Gly Thr Asn Pro Leu His Pro Asn Val Val Ser 665 Ser Pro Val Val Arg Ile Tyr Glu Asp Asp Val Leu Arg Leu Gly Lys 680 685 Lys Asp Lys Phe Pro Tyr Val Gly Thr Thr Tyr Arg Leu Thr Glu His 695 700 Phe His Thr Trp Thr Lys His Ala Arg Leu Asn Ala Ile Ala Gln Pro 710 715 Glu Gln Phe Val Glu Ile Ser Glu Thr Leu Ala Lys Ala Lys Gly Ile 725 730 Ala Asn Gly Asp Arg Val Lys Val Ser Ser Lys Arg Gly Phe Ile Arg 745 740 Ala Val Ala Val Val Thr Arg Arg Leu Gln Thr Leu Asn Val His Gly 760 765 Gln Gln Val Glu Thr Val Gly Ile Pro Leu His Trp Gly Phe Glu Gly 775 780 Val Ala Gln Lys Gly Tyr Ile Ala Asn Thr Leu Thr Pro Asn Val Gly 790 795 Asp Ser Asn Ser Gln Thr Pro Glu Tyr Lys Ala Phe Leu Val Asn Ile 805 810 Glu Lys Ala 820

02

<210> 6288 <211> 239

<212> PRT

<213> Enterobacter cloacae

<400> 6288

Phe Ile Thr Thr Ser Val Ser Gly Arg Ile Lys Arg Trp Met Thr Thr 10 Arg Arg Ser Ile Met Ser Lys Ser Lys Met Ile Val Arg Thr Lys Phe 25 Val Asp Arg Ala Cys His Trp Thr Val Val Ile Cys Phe Phe Leu Val 40 Ala Val Ser Gly Ile Ser Phe Phe Phe Pro Thr Leu Gln Trp Leu Thr 55 Glu Thr Phe Gly Thr Pro Gln Met Gly Arg Ile Leu His Pro Phe Phe 70 75 Gly Val Leu Ile Phe Val Val Leu Met Phe Met Phe Val Arg Phe Val 90 85 His His Asn Ile Pro Asp Lys Gln Asp Ile Pro Trp Leu Lys Gly Ile 105 Val Glu Val Leu Lys Gly Asn Glu His Lys Val Ala Lys Val Gly Lys 120

Tyr Asn Ala Gly Gln Lys Met Met Phe Trp Thr Ile Met Ser Met Ile 135 140 Phe Val Leu Leu Val Thr Gly Val Ile Ile Trp Arg Pro Tyr Phe Ala 150 155 His Tyr Phe Pro Ile Gln Val Val Arg Tyr Ala Leu Leu Ile His Ala 170 165 Thr Ser Ala Ile Ile Leu Ile His Ala Ile Leu Ile His Met Tyr Met 180 185 Ala Phe Trp Val Lys Gly Ser Ile Lys Gly Met Ile Glu Gly Lys Val 200 195 205 Ser Arg Arg Trp Ala Gln Lys His His Pro Arg Trp Tyr Arg Asp Val 215 220 Glu Arg Leu Glu Ala Gln Lys Glu Ser Ser Glu Gly Leu Lys 230

<210> 6289

<211> 90

<212> PRT

<213> Enterobacter cloacae

<400> 6289

 Phe
 Glu
 Leu
 Val
 His
 His
 Thr
 Ser
 Leu
 Ile
 Asn
 Asn
 Ala
 Arg
 Cys
 Val

 Phe
 Phe
 Asn
 Ser
 Gly
 Arg
 Gly
 Met
 Lys
 Lys
 Thr
 Ile
 Phe
 Ser
 Leu
 Ala

 Leu
 Ala
 Thr
 Phe
 Gly
 Leu
 Ala
 His
 Asp
 Thr
 Gly
 Phe
 Gly
 Val

 Leu
 Thr
 Gly
 Leu
 Ala
 His
 Asp
 Thr
 Gly
 Ile
 Phe
 Gly
 Val

 Leu
 Thr
 Gly
 Leu
 Ala
 His
 Asp
 Thr
 Gly
 Ile
 Ser
 Ile
 Pro
 Ser
 Ala
 Gly
 Val
 Ile
 Ser
 Ile
 Pro
 Ile
 Pro
 Ile
 Ser
 Ala
 Ile
 Pro
 Ile
 Pro
 Ile
 Pro
 Ile
 Ile

<210> 6290

<211> 295

<212> PRT

<213> Enterobacter cloacae

<400> 6290

Met Ala Met Glu Thr Gln Asp Ile Ile Lys Arg Ser Ala Thr Asn Pro Ile Thr Pro Ala Pro Arg Ala Arg Asp Tyr Lys Ala Glu Val Ala Lys Leu Ile Asp Val Ser Ser Cys Val Gly Cys Lys Ala Cys Gln Val Ala Cys Ser Glu Trp Asn Asp Ile Arg Asp Glu Val Gly His Cys Val Gly Val Tyr Asp Asn Pro Ala Asp Leu Ser Ala Lys Ser Trp Thr Val Met 75 Arg Phe Ser Glu Thr Asp Gln Asn Gly Lys Leu Glu Trp Leu Ile Arg 85 90 Lys Asp Gly Cys Met His Cys Glu Asp Pro Gly Cys Leu Lys Ala Cys 100 105 110 Pro Ser Ala Gly Ala Ile Ile Gln Tyr Ala Asn Gly Ile Val Asp Phe 120 125 Gln Gln Asp Asn Cys Ile Gly Cys Gly Tyr Cys Ile Ala Gly Cys Pro 135 140 Phe Asn Ile Pro Arg Leu Asn Lys Glu Asp Asn Arg Val Tyr Lys Cys 150 155

Thr Leu Cys Val Asp Arg Val Ser Val Gly Gln Glu Pro Ala Cys Val

170 165 Lys Thr Cys Pro Thr Gly Ala Ile His Phe Gly Thr Lys Lys Glu Met 185 180 Leu Glu Val Ala Gln Gln Arg Val Asp Lys Leu Lys Ala Arg Gly Tyr 200 205 195 Asp Lys Ala Gly Ile Tyr Asn Pro Gln Gly Val Gly Gly Thr His Val 215 220 Met Tyr Val Leu His His Asn Asp Gln Pro Glu Leu Tyr His Asn Leu 230 235 Pro Lys Asp Pro Ala Ile Asp Thr Ser Ile Asn Leu Trp Lys Gly Ala 250 245 Leu Lys Pro Leu Ser Ala Ala Gly Phe Ile Ala Thr Phe Ala Gly Leu 265 Ile Tyr His Tyr Ile Gly Ile Gly Pro Asn Lys Glu Val Asp Asp Asp 280 Glu Glu Glu His His Glu 290 295 <210> 6291 <211> 99 <212> PRT <213> Enterobacter cloacae <400> 6291 Trp Arg Asn Cys Val Arg Ile Glu Thr Ser Leu Phe Thr Thr Pro Glu 10 Cys Met Lys Ala Ile Thr Leu Tyr Asp Val Ala Arg Val Ala Gly Val 25 35 40 Lys Lys Lys Lys Lys Val Arg Gln Ala Met Ala Ala Leu His Tyr 55 Val Pro Asn Arg Gly Ala Gln Gln Leu Ala Gly Lys Arg Thr Arg Thr 75 70 Leu Gly Pro Ile Thr Ser Ile Tyr Leu Ala Ala Gly Thr Ile Gln Arg Leu Gln Leu <210> 6292 <211> 151 <212> PRT <213> Enterobacter cloacae <400> 6292 Pro Gly Gln Arg Cys Cys Cys Cys Gly Ser Arg Cys Val Ser Cys Arg 10 Gly Leu Gly Thr Ile Ser Asn Val Ile Cys Ile Val Gln Ala Ala Asp Ala Ser Met Ala Leu Ile Pro Glu Leu Thr Ser Leu Pro Val Arq Ile Thr Leu Leu Val Ser Gly Ile Val Val Asn Ala Leu Ala Thr Gly Met Tyr Ile Gly Ala Gly Phe Gly Ala Gly Pro Arg Asp Gly Leu Met Thr 70 75

Gly Ile His Ala Arg Leu Gly Trp Ser Ile Arg Ser Val Arg Thr Ala

Ile Glu Val Thr Val Leu Ile Val Gly Tyr Leu Leu Gly Gly Ala Phe

Gly Val Gly Thr Val Leu Tyr Ala Leu Thr Ile Gly Pro Leu Ile Gln

120

105

90

110

85

100

Leu Cys Leu Pro Trp Phe Arg Gln Arg Pro Arg Ile Gln Lys Ala Ala 135 Gln Pro Glu Arg Ile Val <210> 6293 <211> 161 <212> PRT <213> Enterobacter cloacae <400> 6293 Leu Gln Gly Gln Ala His Glu Gly Gly Phe Met Lys Ile Gly Glu Leu 10 Ala Arg Lys Ala Gly Cys Pro Val Glu Thr Ile Arg Tyr Tyr Glu Lys 25 Glu Gly Leu Leu Gln Ala Pro Leu Arg Asp Ile Glu Asn Asn Tyr Arg 40 His Tyr Asp Asn Asn His Leu Glu Lys Leu Leu Phe Ile Arg Arg Cys Arg Ser Leu Asp Met Thr His Glu Glu Ile Arg Ala Leu Leu Leu Ala 75 Ile Asn Asn Asn Gly Lys Glu Cys Gly Pro Ile Asp Ala Ile Ile Ser 85 Ala His Leu Ala His Val Gln His Arg Ile Asn Glu Leu Ile Ala Leu 105 Glu Lys Gln Leu Gln Glu Leu Asn Asp Val Cys Asn Ala Asp Arg Ser 120 Val Asp Glu Cys Gly Ile Val Gln Lys Leu Thr Ala Glu Asp Glu Asp 135 140 Arg Asp Leu Pro Leu Thr Val Pro Thr Asp His Leu Gly Gly Val His 150 <210> 6294 <211> 156 <212> PRT <213> Enterobacter cloacae <400> 6294 Val Met Asn Ile Gly Lys Ala Ser Ser Glu Ser Gly Ile Ser Ala Lys 10 Met Ile Arg Tyr Tyr Glu Gln Ile Gly Leu Ile Pro Ala Thr Gly Arg 25 Thr Glu Ala Gly Tyr Arg Asp Tyr Ala Pro Asn Asp Ile His Arg Leu 40 Ile Phe Ile Arg Ser Ala Arg Asp Leu Gly Phe Ser Leu Glu Glu Ile 55 Glu Gly Leu Leu Lys Leu Trp Asn Asp Lys Ser Arg Gln Ser Ser Asp 70 75 Val Lys Arg Leu Ala Gln Glu His Ile Asn Asp Leu Asp Arg Ile Glu Ser Met Arg Gln Met Ala Asp Thr Leu Arg Val Leu Ile Gln Ser 105 110 Cys Ala Gly Asp Glu Arg Ala Glu Cys Pro Ile Leu His Arg Leu Thr 120 125 Ile Ala Asp Asp Ile Ser His Ser Gly Lys Arg Glu Gly Ala Val Gln 135

Arg Arg Ser Arg Gly Asn Arg Val Ser Lys Asp 145 150 155

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<210> 6295
<211> 81
<212> PRT
<213> Enterobacter cloacae
<400> 6295
Asn Leu Val Ile Arg Gly His Met Ile Thr Lys Thr Tyr Ala Asp Ser
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Val Val Lys Asp Ile Val Gln Trp Val Glu Asn Ser Leu Thr Ser Thr
                                25
Leu Leu Val Glu Glu Ile Ala Glu Lys Ser Gly Tyr Ser Arg Trp His
Phe Gln Arg Ile Phe Lys His Ala Thr Gly Ile Ala Leu Gly Glu Tyr
                        55
Val Lys Pro Asp Asp Tyr Leu Cys Cys Arg Arg Val Glu Thr Asn Tyr
<210> 6296
<211> 547
<212> PRT
<213> Enterobacter cloacae
<400> 6296
Gly Cys Ser Ile Ser Glu Pro Asn Asp Glu Lys Tyr Ile Met Ser Ile
                                    10
Gln Lys Lys Gln His Ser Asn Asp Ala Glu Thr Gln Val Ser Leu Pro
            20
Ile Glu Gly Met Thr Cys Ala Ser Cys Val Gly Arg Val Glu Ala Ala
                            40
Leu Thr Lys Val Glu Gly Val Glu Ser Val Ser Val Asn Leu Ala Thr
                        55
Glu Arg Ala Asp Ile Leu Leu Asn Thr Pro Val Glu Arg Met Ala Leu
                    70
                                         75
Ile Lys Ala Ile Glu Asn Val Gly Tyr Glu Val Pro Leu Thr Ser Val
                                    90
Glu Leu Ser Val Gln Gly Met Thr Cys Ala Ser Cys Val Gly Arg Val
            100
                                105
                                                     110
Glu Lys Ala Leu Arg Ala Val Glu Gly Val Lys Asp Ala Thr Val Asn
                            120
Leu Ala Thr Glu Arg Ala Thr Ile Arg Gly Val Ala Gly Thr Asp Asp
                        135
                                             140
Leu Ile Ala Ala Ile Glu Lys Val Gly Tyr Glu Ala Ser Leu Val Asp
                                         155
Thr Arg Gly Gln Asn Asn Val Glu Ala Ala Glu Lys Lys Asp Ala Glu
                                     170
Lys Ala Ala Leu Lys Lys Asp Leu Val Leu Ala Thr Ile Leu Ala Leu
Pro Val Phe Ile Met Glu Met Gly Ser His Leu Ile Pro Gly Met His
                            200
Gln Trp Ile Met Asp Thr Ile Gly Leu Gln Glu Ser Trp Tyr Leu Gln
                        215
                                             220
Phe Val Leu Thr Leu Leu Val Leu Val Ile Pro Gly Arg Arg Phe Tyr
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Leu Lys Gly Ile Pro Ala Leu Ile Arg Leu Gly Pro Asp Met Asn Ser

Leu Val Ser Val Gly Thr Leu Ala Ala Phe Gly Tyr Ser Met Val Ala 260 265 270 Thr Phe Ala Pro Gly Leu Leu Pro Gln Gly Thr Val Asn Val Tyr Tyr 275 280 285

235

250

230

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Glu Ala Ala Val Ile Val Ala Leu Ile Leu Leu Gly Arg Phe Met
                        295
                                            300
Glu Ala Arg Ala Lys Gly Arg Thr Ser Glu Ala Ile Lys Arg Leu Val
                    310
                                       315
Gly Leu Gln Ala Lys Glu Ala His Val Leu Arg Asn Gly Val Val Val
                                 . 330
                325
Asp Ile Pro Ile Asn Asp Val Val Leu Asp Asp Ile Ile Glu Val Arg
            340
                                345
Pro Gly Glu Arg Val Pro Val Asp Gly Glu Val Ser Glu Gly Thr Ser
                            360
                                                365
Phe Val Asp Glu Ser Met Ile Thr Gly Glu Pro Ile Pro Val Glu Lys
                        375
                                            380
Val Pro Gly Ser Leu Met Val Gly Gly Thr Val Asn Gln Lys Gly Ala
                    390
                                        395
Leu Arg Leu Arg Ala Thr Ala Val Gly Gly Gln Thr Met Leu Ser Gln
                405
                                    410
Ile Ile Arg Met Val Glu Gln Ala Gln Gly Ser Lys Leu Pro Ile Gln
                                425
Ala Val Val Asp Lys Val Thr Leu Trp Phe Val Pro Val Val Met Leu
                            440
                                                445
Ala Ala Leu Leu Thr Phe Leu Ala Trp Leu Thr Phe Gly Pro Ser Pro
                        455
                                            460
Ala Leu Ser Phe Ala Leu Val Asn Ala Val Ala Val Leu Ile Ile Ala
                    470
                                        475
Cys Pro Cys Ala Met Gly Leu Ala Thr Pro Thr Ser Ile Met Val Gly
                485
                                    490
Thr Gly Arg Gly Ala Glu Met Gly Ile Leu Phe Arg Lys Gly Glu Ala
            500
                                505
                                                    510
Leu Gln Leu Lys Asp Ala Lys Val Val Ala Val Asp Lys Thr Gly
                            520
                                                525
Thr Leu Thr Glu Gly Ala Pro Arg Asn Asp Arg Pro Gly Val Ser Arg
                        535
Arg Val
545
<210> 6297
<211> 852
<212> PRT
<213> Enterobacter cloacae
<400> 6297
Leu Thr Gly Glu Ala Ile Lys Met Ser Gly Ser Val Lys Asn Ser Lys
                                    10
Thr Gln Val Arg Glu Glu Ser Ala Gly Cys Cys Glu Lys Ile Asn Leu
Ile Val Gly Ser Lys Met Gln Arg Ser Glu Glu Pro Ala Lys Ala His
Gly His Ala His Asp His Lys Asp Cys Ser Ala Glu Leu Ser His Lys
Glu His Gly His Gly Ser Asp Lys His Leu His Arg Glu Gln Gly His
Val Lys Gly Gly His Ala His Glu Gly Cys Ser His Glu His Ser His
                                    90
                85
Thr Asp Glu Glu His Asp His Gly Glu Glu His Ser His Gly Asp
                                105
His Gln His Lys Gly Cys Asn His Asp His Ala Gln Asp Asp Gln Ala
                            120
                                                125
Asp Glu His His Gly His Ser Gly Asp Cys Cys Ser Gly Ala Pro Thr
                        135
                                           140
Asn Leu Ser Asn Leu Gly Gly Ser Lys Val Val Ala Gly Gly Leu Arg
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155

Thr Glu Ile Arg Ile Met Gln Met Asp Cys Pro Val Glu Glu Asn Leu 165 170 Ile Lys Lys Lys Leu Gly Ala Met Thr Ser Val Lys Glu Leu Asp Phe 180 185 Asn Leu Met Gln Arg Val Leu Thr Val Thr His Thr Pro Asp Ser Leu 195 200 205 Glu Pro Ile Leu Val Ala Ile Arg Ser Leu Gly Phe Val Pro Glu Val 215 220 Ser Asp Asn Asn Gly Glu Lys Lys Asn Ile Gln Glu Lys Lys Pro 230 235 Trp Trp Pro Leu Ala Leu Ala Gly Val Ala Ala Leu Ala Ala Glu Val 250 245 Met His Trp Ala Asp Met Pro Asp Trp Leu Glu Ala Gly Leu Ala Leu 260 265 Ile Ala Val Leu Leu Ser Gly Leu Thr Thr Tyr Lys Lys Gly Trp Ile 280 275 285 Ser Ile Arg Asn Gly Asn Leu Asn Ile Asn Ala Leu Met Ser Ile Ala 295 300 Val Thr Gly Ala Leu Val Leu Gly Gln Trp Pro Glu Ala Ala Met Val 310 315 Met Val Leu Phe Thr Ile Ala Glu Leu Ile Glu Ala Lys Ser Leu Asp 330 325 Arg Ala Arg Asn Ala Ile Gly Ser Leu Met Ser Leu Thr Pro Glu Thr 345 Ala Met Val Gln Gln Thr Asp Gly Ser Trp Gln Glu Val Asp Ala Ser 360 Ser Val Gln Pro Gly Ser Ile Val Arg Val Lys Pro Gly Glu Arg Ile 375 380 Gly Leu Asp Gly Glu Ile Val Lys Gly Gln Thr Thr Ile Asn Gln Ala 390 395 Pro Ile Thr Gly Glu Ser Leu Pro Val Asp Lys Met Ala Gly Asp Ser 405 410 Val Phe Ala Gly Thr Ile Asn Gln Ser Gly Ser Phe Glu Tyr Lys Val 420 425 Thr Ala Ala Ala Asn Asn Thr Thr Leu Ala Arg Ile Ile His Ala Val 440 445 Glu Gln Ala Gln Gly Ala Lys Ala Ala Thr Gln Arg Phe Val Asp Arg 455 460 Phe Ser Gln Ile Tyr Thr Pro Val Val Met Gly Ile Ser Val Ala Val 470 475 Ala Val Leu Pro Pro Leu Phe Gly Ala Gly Thr Trp Gln Glu Trp Ile 490 485 Tyr Lys Ala Leu Val Met Leu Val Ile Ala Cys Pro Cys Ala Leu Val 500 505 Ile Ser Thr Pro Val Thr Ile Val Ser Gly Leu Thr Ala Ala Ala Arg 520 525 Lys Gly Ile Leu Ile Lys Gly Gly Val Tyr Leu Glu Gln Gly Arg Lys 535 540 Leu Lys Ala Leu Ala Leu Asp Lys Thr Gly Thr Ile Thr His Gly Lys 555 550 Pro Val Gln Thr Asp Val Met Val Phe Asn Gly Glu Ser Glu Leu Glu 565 570 Val Arg Thr Val Ala Ala Ser Leu Ala Ser Tyr Ser Asp His Pro Val 585 590 580 Ser Gln Ala Val Val Asn Ala Ser Val Asp Leu Lys Lys Gln Ser Val 600 605 Glu Asn Phe Glu Ala Ile Val Gly Arg Gly Val His Gly Val Ile Ala 615 620 Gly Lys Asp Phe Tyr Leu Gly Asn Leu Arg Leu Ala Glu Asp Leu Leu 630 635 Ser Cys Pro Leu Glu Val Lys Ala Thr Val Gln Ser Leu Glu Ser Leu

645 650 Gly Lys Thr Val Ile Leu Phe Asn Asp Gly Lys Gln Val Leu Gly Leu 660 665 Phe Ala Val Ala Asp Thr Val Lys Asn Thr Ser Arg Glu Ala Ile Gln 680 685 Gln Leu His His Leu Gly Val Lys Thr Val Met Leu Thr Gly Asp Asn 695 700 Pro His Thr Ala Lys Ala Ile Ala Ser Gln Val Gly Ile Asp Glu Ala 710 715 Arg Gly Ser Gln Leu Pro Glu Asp Lys His Gln Val Val Gln Glu Tyr 725 730 Ser Arg Ile Gly Val Thr Gly Met Val Gly Asp Gly Ile Asn Asp Ala 745 Pro Ala Leu Ala Ala Ala Asp Ile Gly Phe Ala Met Gly Ala Met Gly 760 765 Thr Asp Thr Ala Ile Glu Thr Ala Asp Val Ala Leu Met Asp Asp Asp 780 775 Leu Arg Lys Ile Pro Ala Phe Val Lys Leu Ser Arg Gln Thr Tyr Ser 790 795 Leu Leu Val Gln Asn Ile Ser Leu Ala Leu Gly Ile Lys Ala Ile Phe 805 810 Leu Val Leu Thr Leu Met Gly Met Gly Thr Met Trp Met Ala Val Phe 825 820 Ala Asp Val Gly Ala Ser Leu Leu Val Val Ala Asn Gly Leu Arg Leu 840 835 Leu Arg Lys 850 <210> 6298 <211> 316 <212> PRT <213> Enterobacter cloacae <400> 6298 Leu Arg Gly Arg Pro Val Met Thr Asp Leu Glu Leu Ala Glu Gly Phe 10 Glu Leu Asn Glu Val Leu Ala Lys Val Ala Ala Val Glu Ser Arg Ser 25 20 Glu His Pro Ile Ala Arg Ala Ile Val Glu Ser Ala Leu Glu Lys Gly 40 Ile Ser Leu Pro Ile Leu Thr Glu Phe Asp Ser Ile Thr Gly Met Gly 60 Val Arg Ala Ile Val Asp Gly Glu Cys Ile Glu Val Gly Ala Asp Arg 70 75 Phe Met Arg Glu Leu Gly Leu Asp Val Glu His Phe Ser Gln Thr Ser 90 Val Arg Leu Gly Asn Glu Gly Lys Ser Pro Leu Tyr Val Ala Ile Gly 105 100 Gly Arg Leu Ala Ala Ile Ile Ala Val Ala Asp Pro Ile Lys Ser Ser 115 . 120 Thr Pro Ile Ala Ile Asn Ala Leu His Gln Leu Gly Leu Lys Val Ala 135 140 Met Ile Thr Gly Asp Asn Ala Asn Thr Ala His Ala Ile Ala Arg Gln 155 150

Leu Gly Phe Asp Glu Val Val Ala Glu Val Leu Pro Glu Gly Lys Val

Glu Ala Val Arg Arg Leu Lys Glu Ser Tyr Gly Lys Val Ala Tyr Val 185

Gly Asp Gly Ile Asn Asp Ala Pro Ala Leu Ala Val Ala Asp Ile Gly 200 Leu Ala Ile Gly Thr Gly Thr Asp Ile Ala Val Glu Ser Ala Asp Val

165

180

170

```
215
                                            220
Val Leu Met Ser Gly Asn Leu Gln Gly Val Pro Asn Ala Ile Gly Leu
                                       235
                   230
Ser Lys Ala Thr Ile Gly Asn Ile Arg Gln Asn Leu Phe Trp Ala Phe
               245
                                   250
Gly Tyr Asn Ala Ala Leu Ile Pro Val Ala Ala Gly Leu Leu Tyr Pro
           260
                               265
Ala Tyr Gly Leu Leu Ser Pro Ile Phe Ala Ala Gly Ala Met Ala
                           280
                                               285
Leu Ser Ser Val Phe Val Leu Gly Asn Ala Leu Arg Leu Arg Arg Phe
                       295
                                            300
Gln Pro Pro Leu Met Glu Asp Ala Gly Asn His
                    310
<210> 6299
<211> 288
<212> PRT
<213> Enterobacter cloacae
<400> 6299
Thr Cys Gln Arg Phe Ala Ala Ile Phe Arg Ala Pro Val Val Arg Ala
                                    10
Leu Met Ala Arg Leu Tyr Pro Asn Gly Pro Ala Asp Ile Asn His Phe
            20
                                25
Gln Ala Ala Gly Gly Val Pro Val Leu Met Arg Glu Leu Leu Lys Gly
                            40
Gly Leu Leu His Glu Asp Val Asn Thr Val Ala Gly Phe Gly Leu His
                        55
                                            60
Arg Tyr Thr Leu Glu Pro Trp Leu Asn Asn Gly Glu Leu Asp Trp Arg
                    70
                                        75
Glu Gly Ala Ser Asp Ser Leu Asp Pro Gln Val Ile Ala Thr Phe Glu
                8.5
                                    90
Gln Pro Phe Ser Pro His Gly Gly Thr Lys Val Leu Ser Gly Asn Leu
            100
                                105
                                                    110
Gly Arg Ala Val Met Lys Thr Ser Ala Val Pro Glu Glu Asn Gln Val
                            120
                                            . 125
Ile Glu Ala Pro Ala Val Val Phe Glu Ser Gln His Asp Val Leu Pro
                        135
                                            140
Ala Phe Asp Ala Gly Leu Leu Asp Lys Asp Cys Val Val Val Arg
                    150
                                        155
His Gln Gly Pro Lys Ala Asn Gly Met Pro Glu Leu His Lys Leu Met
                165
                                    170
Pro Pro Leu Gly Val Leu Leu Asp Arg Phe Lys Ile Ala Leu Val
            180
                                185
Thr Asp Gly Arg Leu Ser Gly Ala Ser Gly Lys Val Pro Ser Ala Ile
                            200
His Val Thr Pro Glu Ala Tyr Asp Gly Gly Leu Leu Ala Lys Val Arg
                        215
Asp Gly Asp Met Ile Arg Val Asn Gly Gln Thr Gly Glu Leu Thr Leu
                    230
                                        235
Leu Val Asp Glu Ala Glu Leu Ala Ala Arg Gln Pro His Ile Pro Asp
                                    250
Leu Ser Ala Ser Arg Val Gly Thr Gly Arg Glu Met Phe Gly Ala Leu
                               265
                                                    270
Arg Glu Lys Leu Ser Gly Ala Glu Gln Gly Ala Thr Cys Ile Thr Phe
                            280
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<210> 6300
<211> 227
<212> PRT
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<213> Enterobacter cloacae

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Asp Asp Leu Ile Leu Thr Ile Trp Arg Glu Lys Thr Leu Met Lys Asn
                                    10
Trp Lys Thr Ser Ala Glu Ala Ile Leu Thr Thr Gly Pro Val Val Pro
            20
                                25
Val Ile Val Val Asn Lys Leu Glu His Ala Val Pro Met Ala Lys Ala
                            40
Leu Val Ala Gly Gly Val Arg Val Leu Glu Val Thr Leu Arg Thr Ala
                        55
Cys Ala Met Asp Ala Ile Arg Ala Ile Ala Lys Glu Val Pro Glu Ala
                                        75
                    70
Ile Ile Gly Ala Gly Thr Val Leu Asn Ala Gln Gln Leu Ala Glu Val
                85
                                    90
Thr Glu Ala Gly Ala Gln Phe Ala Ile Ser Pro Gly Leu Thr Glu Pro
            100
                                105
Leu Leu Lys Ala Ala Thr Glu Gly Ser Ile Pro Leu Ile Pro Gly Ile
                            120
        115
                                                 125
Ser Thr Val Ser Glu Leu Met Leu Gly Met Asp Tyr Gly Leu Lys Glu
                                            140
                        135
Phe Lys Phe Pro Ala Glu Ala Asn Gly Gly Thr Lys Ala Leu Gln
                    150
                                        155
Ala Ile Ala Gly Pro Phe Ser Gln Val Arg Phe Cys Pro Thr Gly Gly
                                    170
                                                         175
                165
Ile Ser Pro Val Asn Tyr Arg Asp Tyr Leu Ala Leu Lys Ser Val Leu
                                185
            180
Cys Ile Gly Gly Ser Trp Leu Val Pro Ala Asp Ala Leu Glu Ala Gly
        195
                            200
                                                 205
Asp Trp Asp Arg Ile Thr Lys Leu Ala Arg Glu Ala Val Glu Gly Ala
   210
                        215
                                             220
Lys Gln
225
<210> 6301
<211> .840
<212> PRT
<213> Enterobacter cloacae
<400> 6301
Leu Ile Met Ser Gly Glu Ser Glu Val Ala Gln Arg Gln Asp Thr Leu
1
                                    10
Asn Arg Tyr Leu Leu Tyr Phe Pro Arg Ser Lys Asn Val Ile Ser Asp
                                25
Val His Ser Phe Thr Gly Lys Glu Ile Leu Ser Glu Pro Tyr Arg Tyr
                            40
Thr Ile Arg Phe Thr Ser Pro Asp Leu Asn Ile Ala Ile Asn Ala Val
                        55
Leu Asn Gln Arg Ala Glu Phe Ile Leu Arg Ala Pro Asn Leu Glu Ala
                    70
                                        75
Ser Trp His Gly Gln Thr Ser Trp Leu Pro Val Arg Gln Ile Asn Gly
                85
Thr Ile Thr Gln Phe Ser Arg Leu Met Ser Ser Gly Asp Glu Ala Leu
                                105
                                                     110
            100
Tyr Glu Cys Val Leu Glu His Glu Leu Ala Leu Leu Asp Gln Asn Tyr
        115
                                                125
                            120
Arg Ser Ala Val Tyr Met Asn Met Thr Val Pro Glu Leu Val Thr Lys
                        135
                                            140
Leu Met Lys Asp Ser Gly His Phe Asp Gly Tyr Asn Ile Asp Phe Asp
                    150
                                        155
Gln Leu Ser His Ser Tyr Pro Arg Glu Met Ile Val Gln Trp Lys
```

Glu Thr Asp Leu Arg Phe Ile Arg Arg Leu Leu Ala Glu Ile Gly Ile 180 185 Trp Phe Arg Phe Glu Asn His Asn Lys Val Lys Thr Glu Thr Val Val 200 205 Ile Phe Gly Asp Ser Ala Arg Arg Tyr Asn Phe Ser Asp Lys Gln Met 215 220 Pro Tyr Val Arg His Ser Gly Met Thr Ser Tyr Ser Glu Tyr Ile Thr 230 235 Asp Leu Glu Asp Gln His Gly Leu Ile Pro Lys Asn Val Leu Val Arg 245 250 Thr Tyr Phe Tyr Arg Asp Pro Gln Ser Pro Gln Thr Asp Lys Thr Val 265 260 Lys Thr Ser Asp Ile Pro Glu Gly Val Thr Thr Gly Gln His Tyr His 280 Tyr Ala Asp His Tyr Leu Thr Ala Gly Asp Phe His Gly Glu Glu Ala 295 300 Glu Thr Ala Ala Phe Tyr Ala Arg Leu Arg Tyr Glu Arg Leu Leu Asn 310 315 Gly Gln Ser Leu Leu Gly Ala Thr Thr Ser Asp Pro Glu Leu Gln Pro 330 325 Gly Ile Met Phe Tyr Pro Ser Gly Pro Val Pro Asp Gly Phe Lys Ser 340 345 Gly Phe Val Ile Thr Ala Met Thr Ile Arg Gly Ser Arg Ala Glu His 355 360 Tyr Arg Ala Val Leu Ser Gly Ile Pro Tyr Ile Gln Gly Tyr Thr Phe 375 380 Arg Pro Glu Tyr Leu Ser Arg Pro Val Ile Ala Gly Thr Val Pro Ala 390 395 Arg Val Lys Ala Ile Gly Gly Asp Lys Thr Tyr Ala Gly Leu Asp Ala 405 410 Val Gly Arg Tyr Arg Val Lys Phe Asp Phe Asp Leu Asp Glu Lys Arg 420 425 Val Gly Phe Glu Ser Ala Leu Val Arg Leu Gly Arg Pro Tyr Ala Gly 440 Asp Thr Phe Gly Ile His Phe Pro Leu Leu Glu Gly Thr Glu Val Ala 455 460 Val Gly Phe Glu Gly Gly Asp Pro Asp Arg Pro Phe Ile Ala His Val 470 475 Met His Asp Gly Ser His Pro Asp Leu Val Thr Asn Arg Asn Asp Thr 485 490 Arg Asn Val Ile Arg Thr Ala Ala Leu Asn Lys Ile Arg Leu Glu Asp 500 -505 Arg Arg Gly Gln Glu His Ile Lys Ile Ala Thr Glu Tyr Gly Lys Gly 520 Gln Val Ser Val Gly His Leu Val Asp Ala Glu Gly Lys Lys Arg Gly 535 540 Glu Gly Val Glu Ala Arg Thr Asp Asp Trp Met Ala Leu Arg Ala Ala 550 555 Lys Gly Val Met Ile Thr Thr Glu Ala Gln Pro Arg Ala Gly Gly Lys 565 570 Gln Leu Asp Met Thr Ala Ala Ile Ala Gln Leu Glu Lys Ala Leu Ser 580 585 Leu Ala Met Thr Leu Gln Gln Ser Ala Leu Thr Ala Gly Ala Ser Asn 600 605 Val Glu Thr Asp Arg Gln Asn Ala Leu Ser Gln Thr Leu Ser His Leu 615 620 Ala Glu Pro Gly Ile Leu Ala Tyr Gly Lys Ser Gly Ile Ala Leu Val 635 630 Thr Pro Asp Ser Leu Gln Leu Ser Ala Gly Lys Asp Leu Ile Ala Thr 645 650 Ala Gly Gly Asn Ala Ser Val Asn Val Val Lys Lys Phe Ser Leu Ala

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660
                                665
Val Gly Glu Lys Leu Ser Leu Phe Ala Arg Lys Leu Gly Ile Gln Met
                            680
                                                685
Ile Ala Gly Ala Gly Asp Ile Thr Thr Gln Ala Gln Arg Gly Glu Met
                        695
                                            700
His Met Leu Ser Gln Gln Asp Phe Thr Leu Thr Ser Thr Ala Gly Lys
                    710
                                        715
Met Asn Gly Ser Ala Arg Lys Gly Met Gln Phe Val Cys Gly Gly Gly
                725
                                    730
Gly Ile Arg Ile Ser Pro Thr Gly Leu Val Thr Ile Phe Ser Pro Thr
                                745
Gly Ile Glu Leu Lys Ala Pro Ser Leu Lys Tyr Asp Gly Pro Glu Ser
                            760
Val Ser Val Pro Thr Pro Ser Phe Glu Lys Gly Ala Phe Lys Leu Arg
                        775
Tyr Lys Leu His Ala Gly Asp Asp Pro Glu Gln Ile Leu Ala Asn Lys
                    790
                                        795
Lys Phe Arg Leu Thr Ser Ala Ser Gly Gln Val Val Glu Gly Val Thr
                805
                                    810
Asp Ser Cys Gly Arg Ser Pro Leu Leu Asp Ala Asp Asp Leu Asp Ser
                                825
            820
Tyr Lys Met Glu Ile Met Glu
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<211> 437
<212> PRT
<213> Enterobacter cloacae
<400> 6302
Lys Asn Ala Leu Leu Arg Arg Ser Ala His Ala Gly Thr Gly Ala
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Leu Phe Pro Leu Val Arg Arg Gln Pro Ala Ser Lys Asn Val Ser Gln
           20
                                25
Arg Arg Ala Ala Arg Lys Arg Ala Gly Ala Arg Glu Lys Leu Tyr Asn
                            40
Arg Ala Arg Arg Val Ala Gly Val Phe Ile Tyr Pro Phe Thr Ser Arg
                        55
Leu Val Tyr Ser Gly Ala Ile Met Ser Ala Glu Lys Leu Phe Thr Pro
                    70
                                        75
Leu Lys Val Gly Ala Val Thr Ala Pro Asn Arg Val Phe Met Ala Pro
Leu Thr Arg Leu Arg Ser Ile Glu Pro Gly Asp Ile Pro Thr Pro Leu
                                105
Met Gly Glu Tyr Tyr Arg Gln Arg Ala Ser Ala Gly Leu Ile Ile Ser
                            120
                                                125
Glu Ala Thr Gln Ile Ser Ala Gln Ala Lys Gly Tyr Ala Gly Ala Pro
                        135
                                            140
Gly Leu His Ser Pro Glu Gln Ile Ala Ala Trp Lys Lys Ile Thr Ala
                    150
                                        155
Gly Val His Ala Glu Asp Gly Arg Ile Ala Val Gln Leu Trp His Thr
                165
                                    170
Gly Arg Ile Ser His Ser Ser Ile Gln Pro Gly Gly Gln Ala Pro Val
            180
                                185
Ser Ala Ser Ala Leu Asn Ala Asn Thr Arg Thr Ser Leu Arg Asp Glu
                            200
Asn Gly Asn Ala Ile Arg Val Asp Thr Thr Thr Pro Arg Ala Leu Glu
                        215
Leu Asp Glu Ile Pro Gly Ile Val Asn Asp Phe Arg Gln Ala Val Ala
                    230
                                        235
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Asn Ala Arg Glu Ala Gly Phe Asp Leu Val Glu Leu His Ser Ala His

```
250
                245
Gly Tyr Leu Leu His Gln Phe Leu Ser Pro Ser Ser Asn Gln Arg Thr
                                                     270
            260
                                265
Asp Gln Tyr Gly Gly Ser Val Glu Asn Arg Ala Arg Leu Val Leu Glu
                            280
Val Val Asp Ala Val Cys Asn Glu Trp Ser Ala Asp Arg Ile Gly Ile
                        295
                                             300
Arg Val Ser Pro Ile Gly Thr Phe Gln Asn Val Asp Asn Gly Pro Asn
                    310
Glu Glu Ala Asp Ala Leu Tyr Leu Ile Glu Glu Leu Ala Lys Arg Gly
                                    330
Ile Ala Tyr Leu His Met Ser Glu Pro Asp Trp Ala Gly Gly Lys Pro
                                345
Tyr Ser Glu Ala Phe Arg Gln Lys Val Arg Glu Arg Phe His Gly Val
                            360
Ile Ile Gly Ala Gly Ala Tyr Thr Ala Glu Lys Ala Glu Asp Leu Ile
                        375
Gly Lys Gly Leu Ile Asp Ala Val Ala Phe Gly Arg Asp Tyr Ile Ala
                    390
                                        395
Asn Pro Asp Leu Val Ala Arg Leu Gln Lys Lys Ala Glu Leu Asn Pro
               405
                                    410
Gln Arg Pro Glu Ser Phe Tyr Gly Gly Gly Ala Glu Gly Tyr Thr Asp
                                425
            420
Tyr Pro Ser Leu
       435
<210> 6303
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6303
Ser Ile Pro Leu Val Asn Glu Glu Ile Met Arg Leu Leu His Thr Met
                                    10
Leu Arg Val Gly Asp Leu Gln Arg Ser Ile Asp Phe Tyr Thr Asn Val
                                25
Leu Gly Met Lys Leu Leu Arg Thr Ser Glu Asn Pro Glu Tyr Lys Tyr
                            40
Ser Leu Ala Phe Val Gly Tyr Gly Pro Glu Ser Asp Glu Ala Val Ile
                        55
Glu Leu Thr Tyr Asn Trp Gly Val Asp Ser Tyr Glu Leu Gly Thr Ala
                    70
                                        75
Tyr Gly His Ile Ala Leu Glu Val Gly Asn Ala Ala Glu Ala Cys Glu
                                    90
Arg Ile Arg Ser Asn Gly Gly Asn Val Thr Arg Glu Ala Gly Pro Val
                                105
Lys Gly Gly Thr Thr Val Ile Ala Phe Val Glu Asp Pro Asp Gly Tyr
                           120
Lys Ile Glu Leu Ile Glu Ala Lys Asp Ala Gly Arg Gly Leu Gly Asn
                        135
145
<210> 6304
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<212> PRT
<213> Enterobacter cloacae
<400> 6304
Glu Thr Leu Met Ser Asp Asn Ala Gln Phe Thr Gly Leu Cys Asp Arg
```

Phe Arg Gly Phe Tyr Pro Val Val Ile Asp Val Glu Thr Ala Gly Phe Asn Ala Lys Thr Asp Ala Leu Leu Glu Ile Ala Ala Ile Thr Leu Lys Met Asp Glu Gln Gly Trp Leu Val Pro Asp Thr Thr Leu His Phe His 55 Val Glu Pro Phe Glu Gly Ala Asn Leu Gln Pro Glu Ala Leu Ala Phe 70 75 Asn Gly Ile Asp Pro Thr Asn Pro Leu Arg Gly Ala Val Ser Glu Tyr 85 90 Glu Ala Leu His Ala Ile Phe Lys Met Val Arg Lys Gly Met Lys Glu 100 • 105 Asn Asp Cys Ser Arg Ala Ile Met Val Ala His Asn Ala Thr Phe Asp 120 115 His Ser Phe Thr Met Ala Ala Ala Glu Arg Ala Ser Leu Lys Arg Asn 135 Pro Phe His Pro Phe Val Thr Phe Asp Thr Ala Ala Leu Ser Gly Leu . 150 155 Ala Leu Gly Gln Thr Val Leu Ser Lys Ala Cys Ile Thr Ala Gly Ile 165 170 Ala Phe Asp Gly Thr Gln Ala His Ser Ala Leu Tyr Asp Thr Glu Arg 180 185 Thr Ala Glu Leu Phe Cys Glu Ile Val Asn Arg Trp Lys Arg Leu Gly 195 200 Gly Trp Pro Leu Pro Met Gly Asp Glu Ala Asp Leu Gln Ser 215

<210> 6305 <211> 283

<212> PRT

<213> Enterobacter cloacae

<400> 6305

Leu Leu Ile Leu Trp Ile Arg Ile Asp Arg Phe Cys Lys Ser His 1.0 Ala Gly Met His Cys Gly Leu His Leu Ser Gly Asp Cys Pro Val Ala 25 Arg Ile Thr Lys Ile Ser Met Thr Leu Cys Ala Leu Leu Phe Thr Thr 40 Leu Ser Phe Thr Pro Ala Ala Asn Ala Ser Glu Gln Ala Arg His Ser 55 Ala Val Gln Lys Thr His Leu Ala Lys Ser Thr Glu Arg Lys Lys 70 75 Thr Thr Ser Lys Thr Val Lys Lys Ile Thr Ala Gln Thr Lys Lys 85 90 Thr Ala Ser Ser Lys Thr Lys Thr Leu Arg Ser Gly Thr His Lys Thr 105 Thr Arg Thr Thr Ala Ser Leu Val Asn Glu Lys Cys Thr Val Arg Lys 120 Gly His Lys Thr Lys Cys Ala Lys Val Thr Lys Leu Ala Asp Val His 135 Lys Ala Arg Met Gln Lys Ala Gln Lys Thr Ala Met Asn Lys Leu Met 150 155 Gly Gln Ile Gly Lys Pro Tyr Arg Trp Gly Gly Thr Ser Pro Arg Thr 165 170 Gly Phe Asp Cys Ser Gly Leu Val Tyr Tyr Ala Tyr Lys Asp Leu Val 185 Lys Phe Arg Ile Pro Arg Thr Ala Asn Glu Met Tyr His Leu Arg Asp 200 205 Ala Ala Pro Val Asn Arg Gly Glu Leu Gln Asn Gly Asp Leu Val Phe 215 220

2529 Phe Arg Thr Gln Gly Arg Gly Thr Ala Asp His Val Gly Val Tyr Val 235 230 Gly Asn Gly Lys Phe Ile Gln Ser Pro Arg Ser Gly Gln Asp Ile Gln 245 250 Ile Thr Ser Leu Ser Glu Asp Tyr Trp Val Arg His Tyr Val Gly Ala 265 Arg Arg Val Met Thr Pro Lys Thr Ile Arg 280 <210> 6306 <211> 203 <212> PRT <213> Enterobacter cloacae <400> 6306

Ser Lys Gly Met Ser Arg His Thr Glu His Asp Thr Arg Glu His Leu 10 Leu Ala Thr Gly Glu Arg Leu Cys Met His Arg Gly Phe Thr Gly Met 25 Gly Leu Ser Glu Leu Leu Lys Thr Ala Glu Val Pro Lys Gly Ser Phe Tyr His Tyr Phe Arg Ser Lys Glu Ala Phe Gly Val Ala Met Leu Glu 55 Arg His Tyr Ala Ser Tyr His Gln Arg Leu Ala Ala His Phe Ala Ser 75 Gly Glu Gly Asp Tyr Arg Asp Arg Val Leu Asn Tyr Tyr Gln Glu Thr 85 Leu Thr Gln Phe Cys Gln Gln Gly Ile Ile Ser Gly Cys Leu Thr Val 105 Lys Leu Ser Ala Glu Val Cys Asp Leu Ser Glu Asp Met Arg Thr Ala 120 125 Met Asp Lys Gly Ala Ser Gly Val Ile Ala Leu Leu Ala Gln Ala Leu 135 140 Glu Ser Gly Arg Asn Glu Lys Thr Leu Ser Phe Ser Gly Asp Pro Leu 150 155 Thr Gln Ala Gln Val Leu Tyr Ser Leu Trp Leu Gly Ala Asn Leu Gln 170 165 Ala Lys Met Ser Arg Ser Ala Val Pro Leu Glu Ser Ala Leu Ala His 180 185 Val Lys Asn Cys Ile Thr Ala Pro Gly Val

<210> 6307 <211> 589 <212> PRT

<213> Enterobacter cloacae

Ser Val Pro Leu Val Leu Phe Cys Gly Trp Val Ile Val Phe Ser Leu

_			100	_		_	_	105	_	_			110		_
Leu	Asn	Ile 115	Pro	Tyr	Ile	Arg	Lys 120	Pro	Leu	Leu	Ile	Val 125	Leu	Thr	Leu
Gly	Cys 130	Ala	Ala	Ala	Thr	Trp 135	Phe	Met	Tyr	Thr	Tyr 140	Gly	Ala	Val	Ile
Asp 145	Gln	Asn	Met	Ile	Val 150	Asn	Val	Phe	Glu	Thr 155	Asn	Ser	Gln	Glu	Ala 160
Thr	Ala	Leu	Val	Thr 165	Pro	Gln	Met	Ile	Leu 170	Trp	Leu	Val	Val	Ala 175	Gly
Leu	Val	Pro	Ser 180	Val	Val	Leu	Ala	Leu 185	Thr	Arg	Ile	Arg	Thr 190	Gly	Lys
Trp	Trp	Tyr 195	Ala	Leu	Leu	Thr	Arg 200	Phe	Ala	Ala	Met	Leu 205	Gly	Ala	Leu
Leu	Val 210	Ile	Ile	Leu	Val	Ala 215	Ser	Val	Phe	Tyr	Lys 220	Asp	Tyr	Ala	Ser
Leu 225	Phe	Arg	Asn	Asn	Lys 230	Ser	Ile	Val	Lys	Met 235	Val	Thr	Pro	Ala	Asn 240
Tyr	Val	Ser	Ala	Val 245	Val	Lys	Tyr	Ser	Lys 250	Met	Arg	Trp	Phe	Ala 255	Gly
Asp	Gln	Thr	Leu 260	Val	Arg	Ile	Gly	Glu 265	Asp	Ala	His	Lys	Gly 270	Ala	Leu
Ile	Ala	Ser 275	Gln	Arg	Lys	Lys	Thr 280	Val	Leu	Val	Val	Val 285	Val	Gly	Glu
Ala	Ser 290	Arg	Ala	Ala	Asn	Tyr 295	Ser	Leu	Asn	Gly	Tyr 300	Pro	Arg	Glu	Thr
Asn 305	Pro	Glu	Leu	Lys	Lys 310	Gln	Asp	Val	Ile	Asn 315	Phe	Pro	Arg	Ala	Ser 320
Ser	Cys	Gly	Thr	Glu 325	Thr	Ala	Val	Ser	Val 330	Pro	Cys	Met	Phe	Ser 335	Gly
Met	Thr	Arg	Lys 340	Lys	Tyr	Asp	Ala	Asp 345	Leu	Ala	His	His	Gln 350	Glu	Gly
		355	Val				360					365			-
Asn	Asp 370	Gly	Gly	Cys	Lys	Gly 375	Ala	Cys	Asp	Arg	Val 380	Pro	His	Thr	Asp
Met 385	Thr	Gln	Trp	Lys	Leu 390	Asp	Gln	Phe	Cys	Lys 395	Asp	Lys	Ser	Cys	Ile 400
Asp	Asp	Val	Asn	Leu 405	Tyr	Arg	Leu	Asp	Asn 410	Val	Leu	Asp	Gly	Ile 415	Lys
Gln	Asp	Thr	Val 420	Leu	Val	Ile	His	Leu 425	Met	Gly	Ser	His	Gly 430	Pro	Ala
Tyr	Tyr	Lys 435	Arg	Tyr	Pro	Asp	Ser 440	Phe	Arg	Lys	Phe	Thr 445	Pro	Thr	Суѕ
	450		Glu			455					460				
Tyr 465	Asp	Asn	Thr	Ile	Leu 470	Tyr	Thr	Asp	Ser	Val 475	Val	Ser	Arg	Thr	Ile 480
Asp	Ala	Leu	Lys	Ala 485	Arg	Gln	Ala	Asn	Met 490	Asn	Thr	Ala	Leu	Ile 495	Tyr
Leu	Ser	Asp	His 500	Gly	Glu	Ser	Leu	Gly 505	Glu	Ser	Gly	Ile	Tyr 510	Leu	His
Gly	Thr	Pro 515	Tyr	Met	Leu	Ala	Pro 520	Glu	Gln	Gln	Thr	His 525	Ile	Pro	Phe
Met	Phe 530	Trp	Leu	Ser	Pro	Asp 535	Tyr	Ala	Lys	Asn	Phe 540	Gly	Val	Asn	Thr
Asp 545	Cys	Leu	Arg	Asp	His 550	Ala	Ala	Lys	Glu	Ala 555	Val	Ser	Gln	Asp	Asn 560
Leu	Phe	Ala	Thr	Val 565	Leu	Gly	Met	Met	Asp 570	Val	Lys	Ser	Ala	Val 575	
Gln	Pro	Gln	Leu 580	Asp	Ile	Leu	Ser	Gln 585	Cys	Arg	Arg				

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<210> 6308
<211> 274
<212> PRT
<213> Enterobacter cloacae
<400> 6308
Ile Tyr Pro Val Thr Ala Gln Arg Ser Gly His Ser Asp His Leu Ser
                                    10
Gln Arg Arg Leu Leu Gly Ala Pro Leu Cys Gly Cys Ala Pro Arg Asp
                                25
Asp Ala Lys Asn His Pro Leu Ala Pro Ala Leu Pro Pro Leu Trp Gln
Gly Lys Phe Leu Phe Cys Ile Pro Phe Gln Phe Ala Ile Leu Ser Leu
                        55
Leu Ser Val Arg Leu Leu Ala Thr Tyr Lys Thr Ile Arg Arg Glu Ala
                    70
                                        75
Met Ser Phe Glu Leu Pro Ala Leu Pro Tyr Ala Lys Asp Ala Leu Ala
                8.5
                                    90
Pro His Ile Ser Ala Glu Thr Leu Glu Tyr His Tyr Gly Lys His His
                                105
                                                     110
            100
Gln Thr Tyr Val Thr Asn Leu Asn Asn Leu Ile Lys Gly Thr Asp Phe
       115
                            120
                                                125
Glu Gly Lys Thr Leu Glu Glu Ile Val Arg Ser Ser Asp Gly Gly Val
                        135
                                            140
Phe Asn Asn Ala Ala Gln Val Trp Asn His Thr Phe Tyr Trp His Cys
                    150
                                        155
Leu Ala Pro Asn Ala Gly Gly Glu Pro Asp Gly Glu Leu Ala Ala Ala
               165
                                    170
Ile Asn Ala Ala Phe Gly Ser Phe Ala Asp Phe Lys Ala Lys Phe Thr
                                                    190
            180
                               185
Asp Ala Ala Val Lys Asn Phe Gly Ser Gly Trp Thr Trp Leu Val Lys
       195
                            200
                                                205
Glu Ala Asp Gly Lys Leu Ala Ile Val Ser Thr Ser Asn Ala Gly Thr
                        215
                                            220
Pro Leu Thr Thr Ser Ala Thr Pro Leu Met Thr Val Asp Val Trp Glu
                    230
                                        235
His Ala Tyr Tyr Ile Asp Tyr Arg Asn Ala Arg Pro Asn Tyr Leu Glu
               245
                                    250
His Phe Trp Ala Leu Val Asn Trp Glu Phe Val Ala Lys Asn Phe Ala
                                265
Ala
<210> 6309
<211> 138
<212> PRT
<213> Enterobacter cloacae
<400> 6309
Arg Arg Asn Tyr Leu Gly Gly Lys Phe Ala Asp Arg Ser Val Ser Gly
                                    10
Thr Leu Lys Gly Phe Leu Thr Leu Leu Ile Val Ile Met Val Ala Ile
                                25
Pro Trp Leu Ala Arg Asn Glu Val Gly Ala Ala Ile Ala Met Val Val
Trp Gly Ala Ala Thr Phe Ala Val Val Pro Pro Leu Gln Met Arg Val
                        55
Met Arg Val Ala His Glu Ala Pro Gly Leu Ser Ser Ser Val Asn Ile
                    70
                                        75
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Gly Ala Phe Asn Leu Gly Asn Ala Leu Gly Ala Ala Ala Gly Gly Ala

90 Val Ile Ser Gly Gly Leu Gly Tyr Ser Phe Val Pro Val Met Gly Ala 105 100 Ile Ile Ala Ala Leu Gly Leu Leu Val Ile Met Ser Gly Arg Lys 120 Gln Pro Gln Ala Val Cys Thr Ala Glu 130 <210> 6310 <211> 120 <212> PRT <213> Enterobacter cloacae <400> 6310 Arg Lys Gln Asp Met Ser Thr Thr Ile Glu Lys Ile Gln Arg Gln Ile Ala Glu Asn Pro Ile Leu Leu Tyr Met Lys Gly Ser Pro Lys Leu Pro 25 Ser Cys Gly Phe Ser Ala Gln Ala Val Gln Ala Leu Ser Ala Cys Gly 40 Glu Arg Phe Ala Tyr Val Asp Ile Leu Gln Asn Pro Asp Ile Arg Ala 55 Glu Leu Pro Lys Tyr Ala Asn Trp Pro Thr Phe Pro Gln Leu Trp Val 70 75 Asp Gly Glu Leu Val Gly Gly Cys Asp Ile Leu Ile Glu Met Tyr Gln 90 Arg Gly Glu Leu Gln Gln Leu Ile Lys Glu Thr Ala Ala Lys Tyr Lys 100 105 Thr Glu Glu Pro Asp Ala Glu 120 115 <210> 6311 <211> 211 <212> PRT <213> Enterobacter cloacae <400> 6311 Ser Arg Arg Gly Ser Ala Arg Ala Leu Ser Gly Gly Arg Leu His Tyr 10 Lys Ala Cys Arg Leu Pro Ser Pro Ala Arg Thr Cys Ala Asp Arg Arg 25 Tyr His Val Ser Pro Ala Leu Gln Ser Asp Thr Ala Arg Leu Leu Leu 40 Arg Ser Asp Arg Cys Arg Arg Ser Gly Lys Tyr Arg Ser Gly Arg His Glu Tyr Gln Cys Gly Leu Arg Ser Thr His Tyr Arg Gln His Pro Pro 75 Leu Gln Ala Pro Asp Ala Arg Gly Phe Gln Arg Cys Arg Arg Thr Gly Arg Tyr Ala Gly Trp Lys Lys Gly Thr Gly Thr Asp Ala Ala Gly Asn 105 Arg Ala Gln Ser Ala Ala Gln Pro Gly Arg Ser Pro Leu His Glu Arg 120 Trp Arg Arg Pro Asp Gly Asn His Ser Gln Tyr Pro Gly Ser Arg Pro 135 140 Ala Pro Ala Arg Val Ala Trp Trp Cys Gln Arg Gly Ser His Tyr Arg 150 155 Phe His Arg Ala Gly Lys Cys Gly Tyr Trp Arg Ser Gly Gln Lys Gln 165 170 Lys Pro Ala Pro Asp Arg Gln Ala Gly Cys Cys Cys Val Arg Tyr Asp 180 185

Arg Cys Ala Thr Ala Glu Pro Gln Tyr Gly His Leu Gln His Glu His 200 Leu Arg 210 <210> 6312 <211> 77 <212> PRT <213> Enterobacter cloacae <400> 6312 Gly Asn Ile Met Lys Arg Phe Leu Ser Val Ala Leu Leu Ala Ala Leu 10 Leu Ala Gly Cys Ala His Asp Ser Pro Cys Val Pro Val Tyr Asp Asp 20 Gln Gly Arg Leu Val His Thr Asn Thr Cys Met Lys Gly Thr Thr Gln 40 Asp Asn Trp Glu Thr Ala Gly Ala Ile Ala Gly Gly Ala Ala Ile 55 Ala Gly Leu Thr Leu Gly Ile Val Ala Leu Thr Lys 70 <210> 6313 <211> 991 <212> PRT <213> Enterobacter cloacae <400> 6313 Arg Pro Tyr Pro Leu Ser Ile Cys Ala Pro Ala Val Lys Ile Thr Gln Val Ile Glu Gln Asn Met Asn Gly Ile Asp Asn Leu Met Tyr Met Ser 25 Ser Thr Ser Asp Ser Ala Gly Asn Val Thr Ile Thr Leu Thr Phe Glu Ser Gly Thr Asp Pro Asp Ile Ala Gln Val Gln Val Gln Asn Lys Leu 55 Gln Leu Ala Met Pro Leu Leu Pro Gln Glu Val Gln Gln Gln Gly Ile 70 75 Gly Val Glu Lys Ser Ser Ser Phe Leu Leu Val Ala Gly Phe Val 85 Ser Asp Asn Lys Asn Leu Thr Gln Asp Asp Ile Ser Asp Tyr Val Ala 110 100 105 Ser Asn Val Lys Asp Ala Ile Ser Arg Thr Ser Gly Val Gly Asp Val 120 125 Gln Leu Phe Gly Ala Gln Tyr Ala Met Arg Ile Trp Leu Asp Ser Asn 140 135 Ala Met Asn Lys Tyr Gln Leu Thr Pro Leu Asp Ile Ile Asn Gln Leu 150 155 Lys Thr Gln Asn Asp Gln Ile Ala Ala Gly Gln Leu Gly Gly Thr Pro 165 170 175 Ser Val Pro Gly Gln Gln Leu Asn Ala Ser Ile Ile Ala Gln Thr Arg 185 Leu Lys Ser Pro Glu Glu Phe Gly Arg Val Thr Leu Lys Val Asn Gln 200 Asp Gly Ser Met Val His Leu Lys Asp Val Ala Arg Ile Glu Leu Gly 215 220 Gly Glu Asn Tyr Asn Met Val Thr Lys Ile Asn Gly Gln Ala Ala Thr 230 235 Gly Leu Gly Ile Lys Leu Ala Thr Gly Ala Asn Ala Leu Asp Thr Ala 245 250 Ala Ala Ile Lys Ser Lys Leu Ala Gln Leu Gln Pro Phe Pro Gln

260 265 270 Gly Leu Lys Val Val Tyr Pro Tyr Asp Thr Thr Pro Phe Val Lys Ile 280 Ser Ile His Glu Val Val Lys Thr Leu Phe Glu Ala Ile Val Leu Val 295 300 Phe Leu Val Met Tyr Leu Phe Leu Gln Asn Leu Arg Ala Thr Leu Ile 310 315 Pro Thr Ile Ala Val Pro Val Val Leu Leu Gly Thr Phe Ala Val Leu 325 330 Ala Ala Phe Gly Phe Ser Ile Asn Thr Leu Thr Met Phe Gly Met Val 345 340 Leu Ala Ile Gly Leu Leu Val Asp Asp Ala Ile Val Val Glu Asn 360 365 Val Glu Arg Val Met Val Glu Asp Lys Leu Pro Pro Lys Glu Ala Thr 375 380 Gln Lys Ser Met Glu Gln Ile Gln Gly Ala Leu Val Gly Ile Ala Met 390 395 Val Leu Ser Ala Val Phe Ile Pro Met Ala Phe Phe Gly Gly Ser Thr 405 410 Gly Ala Ile Tyr Arg Gln Phe Ser Leu Thr Ile Val Ser Ala Met Ala 420 425 Leu Ser Val Leu Val Ala Leu Ile Leu Thr Pro Ala Leu Cys Ala Thr 440 Leu Leu Lys Pro Val Ser Ser Glu His His Glu Lys Lys Gly Gly Phe 455 Phe Gly Trp Phe Asn Ala Leu Phe Asp Lys Ser Val Glu His Tyr Ser 475 470 Asn Ser Val Ser Gly Ile Leu Arg Lys Thr Gly Arg Tyr Leu Leu Val 485 490 Tyr Val Ile Ile Val Gly Gly Met Ala Val Leu Phe Leu Arg Leu Pro 505 Ser Ser Phe Leu Pro Glu Glu Asp Gln Gly Val Phe Met Thr Met Val 520 Gln Leu Pro Ala Gly Ala Thr Gln Met Arg Thr Gln Gln Val Leu Asp 535 540 Gln Val Gln Asp Tyr Tyr Leu Thr Lys Glu Lys Ala Asn Val Glu Ser 550 555 Val Phe Thr Val Asn Gly Phe Ser Phe Ser Gly Gln Gly Gln Asn Ser 570 565 Gly Ile Ala Phe Val Ser Leu Lys Pro Trp Glu Glu Arg Pro Gly Lys 585 Glu Asn Gly Val Glu Ala Ile Val Ser Arg Ala Thr Lys Ala Phe Ser 600 605 Gln Ile Lys Asp Gly Leu Val Phe Pro Phe Asn Leu Pro Ala Ile Ile 615 620 Glu Leu Gly Thr Ala Thr Gly Phe Asp Phe Glu Leu Ile Asp Gln Ala 635 630 Asn Leu Gly His Thr Gln Leu Thr Gln Ala Arg Asn Gln Leu Leu Gly 645 650 Met Val Arg Glu His Pro Asp Leu Leu Val Arg Val Arg Pro Asn Gly 665 Leu Glu Asp Thr Pro Gln Phe Lys Leu Asp Val Asp Gln Glu Lys Ala 680 Gln Ala Leu Gly Val Ser Val Ser Asp Val Asn Gln Thr Ile Ser Thr 695 Ala Leu Gly Gly Thr Tyr Val Asn Asp Phe Ile Asp His Gly Arg Val 710 715 Lys Lys Val Tyr Val Gln Ala Asp Ala Arg Phe Arg Met Leu Pro Gly 730 725 Asp Ile Asn Gly Leu Tyr Val Arg Ser Ala Asn Gly Glu Met Val Pro 745

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Phe Ser Ala Phe Ser Ser His Trp Val Tyr Gly Ser Pro Arg Leu
                            760
Glu Arg Tyr Asn Gly Met Pro Ser Met Glu Ile Leu Gly Glu Ser Ala
                       775
                                            780
Pro Gly Lys Ser Thr Gly Glu Ala Met Ala Leu Met Glu Asn Leu Ala
                    790
                                        795
Ser Lys Leu Pro Ser Gly Ile Gly Tyr Asp Trp Thr Gly Met Ser Tyr
                                    810
                805
Gln Glu Arg Leu Ser Gly Asn Gln Ala Pro Ala Leu Tyr Ala Ile Ser
                                825
            820
                                                    830
Leu Ile Val Val Phe Leu Cys Leu Ala Ala Leu Tyr Glu Ser Trp Ser
                            840
                                                845
Ile Pro Phe Ser Val Met Leu Val Val Pro Leu Gly Val Ile Gly Ala
                        855
                                            860
Leu Leu Ala Ala Ser Met Arg Gly Leu Asn Asn Asp Val Tyr Phe Gln
                 870
                                        875
Val Gly Leu Leu Thr Thr Ile Gly Leu Ser Ala Lys Asn Ala Ile Leu
                                    890
Ile Val Glu Phe Ala Lys Asp Leu Met Asp Lys Glu Gly Lys Gly Ile
                                905
Ile Glu Ala Thr Leu Glu Ala Ser Arg Met Arg Leu Arg Pro Ile Leu
        915
                            920
Met Thr Ser Leu Ala Phe Ile Leu Gly Val Met Pro Leu Val Ile Ser
                        935
                                            940
Ser Gly Ala Gly Ser Gly Ala Gln Asn Ala Val Gly Thr Gly Val Met
                    950
                                        955
Gly Gly Met Leu Ser Ala Thr Leu Leu Ala Ile Phe Phe Val Pro Val
               965
                                    970
Phe Phe Val Val Val Arg Arg Phe Thr Lys His Lys Asp
                                985
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<210> 6314

<211> 165

<212> PRT

<213> Enterobacter cloacae

## <400> 6314

Leu Ser Leu Ser Pro Ala Thr Leu Val Val Trp Phe Arg Asn Ala Gly 10 Thr Leu Ser Met Lys Lys Ile Ala Ile Ile Gly Ser Gly Pro Thr Gly 25 Ile Tyr Thr Phe Tyr Ser Leu Leu Asn Asn Ala Ala Pro Leu Ser Ile 40 Thr Val Phe Glu Lys Ala Asp Gln Pro Gly Val Gly Met Pro Tyr Ser 55 Asp Glu Asp Asn Ser Arg Leu Met Leu Ala Asn Ile Ala Ser Ile Glu Ile Pro Pro Ile Phe Ile Thr Tyr Leu Asp Trp Leu Lys Gln Gln Asn Ala Ala Arg Leu Ala Arg Tyr Asn Val Asp Ser Glu Lys Leu His Asp 105 Arg Gln Phe Leu Pro Arg Ile Leu Leu Gly Glu Tyr Phe His Asp Arg 120 125 Phe Leu Ala Gly Ala Ala Glu Ala Asn Asn Ala Gly Phe His Ile Glu 135 140 Val His Pro Thr Ala Glu Ile Pro Asp Ile Asn Ala Asp Ala Asn Ala 150 155 Trp Pro Phe His

35

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<211> 106
<212> PRT
<213> Enterobacter cloacae
<400> 6315
Thr Leu Ala Asp Gly Cys Ala His Ile Ala Gln Lys Ser Ile Phe Phe
                                    10
Arg Arg Ile Leu Arg Ser Glu Lys His Met Thr Leu Asn Ser Asn His
           20
Ser Asp Trp Arg Asp Met Leu Met Lys Arg Gln Asp Ile Asn Ala Leu
Lys Asn Phe Asp Phe Leu Ala Arg Ser Phe Ala Arg Met Tyr Ala Gln
Gly Gln Pro Val Asp Ile Asp Ala Val Thr Gly Asn Met Ser Asn Lys
                                        75
                    70
Gln Gln Ala Trp Phe Arg Glu Arg Tyr Asp His Tyr Arg Lys Gln Ala
                                    90
Glu Arg Ala Arg Val Ile Glu Leu Arg
           100
<210> 6316
<211> 174
<212> PRT
<213> Enterobacter cloacae
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His Leu Phe Leu Lys Lys Gly Ile Ala Met Ala Asp Ser Phe Gln
Asn Glu Val Pro Lys Ala Arg Ile Asn Leu Lys Leu Ala Leu His Thr
                                25
Gly Gly Ala Gln Lys Lys Ile Glu Leu Pro Leu Lys Leu Leu Thr Val
                            40
                                                4.5
Gly Asp Phe Ser Asn Gly Lys Glu Asn Arg Pro Leu Ser Glu Arg Glu
                        55
                                            60
Lys Ile Asn Val Asn Lys Asn Asn Phe Asn Ser Val Leu Ser Glu Phe
                    70
                                        75
Asn Pro Glu Val Asn Leu Thr Val Pro Asn Thr Met Ala Gly Asp Gly
                                    90
Ser Glu Glu Ser Ile Lys Leu Asn Phe Ser Asp Ile Lys Asp Phe Glu
                                105
                                                    110
Pro Glu Gln Val Ala Arg Gln Ile Pro Gln Leu Arg Ala Met Leu Ala
       115
                           120
                                                125
Met Arg Asn Leu Leu Arg Asp Leu Lys Ser Asn Leu Leu Asp Asn Ala
                       135
                                            140
Thr Phe Arg Lys Glu Leu Glu Lys Ile Leu Lys Asp Pro Ala Leu Ser
                   150
                                       155
Gln Glu Leu Arg Asp Glu Met Ser Ala Leu Ala Pro Lys
                165
<210> 6317
<211> 146
<212> PRT
<213> Enterobacter cloacae
<400> 6317
Gly Asp Ala Leu Ser Met Met Thr Ser Ile Met Asp Thr Asp Met Lys
                                    10
Thr Arg Ile Leu Leu Thr Val Ser Val Leu Phe Asn Met Gln Ala
                                25
Asp Ala Ala Arg Gly Arg Gln Pro Cys Ser Gly Ser Lys Gly Gly Ile
```

```
Ala His Cys Thr Ser Asp Gly Arg Phe Val Cys Asn Asp Gly Ser Leu
                        55
Ser Gln Ser Lys Arg Phe Cys Ser Gly Tyr Gly Ala Ser Glu Leu Pro
                    70
                                        75
Arg Gln Val Lys Pro Ser Pro Ser Ala Arg Lys Ala Gln Thr Lys Lys
                                    90
Arg Ile Ala Val Lys Gly Gln Glu Gln Arg Val Val Glu Asn Asn Ala
            100
                                105
Gln Phe Asp Thr Gln Pro Arg Gln Pro Thr Cys Ala Pro Leu Tyr Met
                            120
                                                125
Ala Asn Lys Pro Gly Phe Thr His Leu Pro Ile Cys Ser Gly Asn Gln
                        135
                                            140
Tyr
145
<210> 6318
<211> 181
<212> PRT
<213> Enterobacter cloacae
<400> 6318
Lys Ala Gly Lys Glu His Leu Pro Ile Arg His Glu Leu Phe Glu Tyr
                                    10
Ser Phe Leu Leu Phe Arg Arg Tyr Met Met Thr Leu Arg Thr Phe Pro
            20
                                25
Val Leu Asn Asp Leu Ser Asp Ser Leu Phe Ala Asp Arg Phe Asn Arg
Ile Asp Arg Leu Phe Ser Gln Leu Thr Gly Ser Thr Pro Leu Pro Ser
Thr Pro Ser Tyr Asn Ile Arg Arg Leu Gly Asp Asn Arg Tyr Glu Leu
                                        75
Thr Leu Ser Val Pro Gly Trp Lys Glu Ser Glu Leu Glu Ile Glu Thr
Val Gly Gly Gln Leu Asn Ile Ser Gly Lys Arg Glu Glu Glu Lys Thr
                                105
Glu Asn Gly Glu Glu Gly Trp Ile His Arg Gly Ile Ser Arg Ser Asp
        115
                            120
                                                125
Phe Arg Ala Ser Tyr Ser Leu Pro Glu His Val Lys Val Thr Gly Ala
                        135
                                            140
Ser Leu Glu Asn Gly Leu Leu Ala Ile Glu Leu His Gln Asp Ile Pro
                    150
                                        155
Glu Glu Glu Lys Pro Gln Arg Ile Ala Ile Asn Asn Asn Pro Ala Ile
                                    170
Glu His Lys Pro
            180
<210> 6319
<211> 223
<212> PRT
<213> Enterobacter cloacae
<400> 6319
Ile Thr Trp Gly Phe Ile Met Phe Asn Glu Val His Ser Leu Pro Gly
His Thr Leu Leu Leu Ile Thr Lys Pro Ser Leu Gln Ala Thr Ala Leu
Leu Gln His Leu Lys Gln Cys Leu Ser Leu Asn Gly Lys Leu His Asn
Ile Gln Arg Ser Phe Asp Asp Ile Ala Ser Gly Ser Ile Ile Leu Leu
Asp Met Met Glu Ala Asp Lys Leu Ile His Tyr Trp Gln Asp Asn
```

70 75 Leu Ser Arg Lys Asn Asn Asn Ile Arg Val Leu Leu Asn Thr Pro 85 90 Asp Glu Tyr Pro Phe Arg Glu Ile Glu Ser Trp Pro His Ile Asn Gly 105 Val Phe Tyr Val Thr Glu Glu Glu Asn Arg Val Val Glu Gly Leu Gln 120 Gly Ile Leu Arg Gly Glu Cys Tyr Phe Ser Gln Lys Leu Ala Ser Tyr 135 140 Leu Ile Thr His Ser Gly Asn Tyr Arg Tyr Asn Ser Ser Glu Ser Ala 155 150 Leu Leu Thr His Arg Glu Lys Glu Ile Leu Asn Lys Leu Arg Ile Gly 170 165 Ala Ser Asn Ile Glu Ile Ala Arg Ser Leu Phe Ile Ser Glu Asn Thr 185 180 Val Lys Thr His Leu Tyr Asn Leu Phe Lys Lys Ile Ala Val Lys Asn 200 Arg Thr Gln Ala Val Ser Trp Ala Asn Asp Asn Leu Arg Arg 215 <210> 6320 <211> 150 <212> PRT <213> Enterobacter cloacae <400> 6320 Val Leu Thr Thr Ile Pro Ile Ser Glu Ala Val Met Arg Leu Ala His Thr Val Ile Ser Leu Met Leu Ile Ala Pro Leu Ser Trp Ala Gly Asn Met Thr Phe Gln Phe Arg Asn Pro Asn Phe Gly Gly Asn Pro Asn Asn Gly Ala Phe Met Leu Asn Gln Ala Gln Ala Gln Asn Ser Tyr Lys Asp Pro Ser Tyr Asp Asp Phe Gly Ile Glu Thr Pro Ser Ala Leu Asp 70 Asn Phe Thr Gln Ala Ile Gln Ser Gln Ile Leu Gly Gly Leu Leu Thr 85 Asn Ile Asn Thr Gly Lys Pro Gly Arg Met Val Thr Asn Asp Phe Ile 105 100 Val Asp Ile Ala Asn Lys Asp Gly Gln Leu Gln Leu Asn Val Thr Asp 120 125 115 Arg Lys Thr Gly Lys Thr Ser Thr Ile Gln Val Ser Gly Leu Gln Thr 135 130 Ser Ser Thr Asp Phe 150 <210> 6321 <211> 150 <212> PRT <213> Enterobacter cloacae <400> 6321 Leu Leu Lys Ile Ala Arg Arg Cys Arg Gly Gln Thr Ile Thr Ser Gly Val Asn Ser Met Lys Arg Thr Leu Ser Trp Ile Ala Ala Gly Ile Met Leu Ala Ala Gly Asn Leu Gln Ala Val Glu Val Pro 40 Gly Leu Leu Thr Asp His Thr Val Thr Ser Val Gly His Asp Phe Tyr

Arg Ala Phe Ser Asp Lys Trp Glu Ser Asp Tyr Pro Gly Asn Leu Thr 70 75 Ile Asn Glu Arg Pro Ser Ala Arg Trp Gly Ser Trp Ile Thr Ile Thr 90 Ala Asn Gln Asp Val Ile Tyr Gln Thr Phe Leu Phe Pro Thr Lys Arg 100 105 Asp Phe Asp Gln Asn Val Ala Phe Ala Leu Ala Gln Thr Glu Glu Ala 115 120 Ile Asn Arg Leu Gln Leu Asp Lys Ala Leu Leu Ser Thr Gly Asp Leu 135 Ala Lys Asp Glu Phe

<210> 6322

<211> 289

<212> PRT

<213> Enterobacter cloacae

<400> 6322

Phe Leu Asn Asn Pro Glu Ile Arg Thr Ile Ile Met Gln Arg Phe Phe Ile Leu Val Ala Val Cys Leu Leu Ser Gly Cys Leu Thr Ala Pro Pro Lys Glu Ala Ala Lys Pro Thr Leu Met Pro Arg Ala Gln Ser Tyr Arg Asp Leu Thr His Leu Pro Val Pro Thr Gly Lys Ile Phe Val Ser Val 55 Tyr Asn Ile Gln Asp Glu Thr Gly Gln Phe Lys Pro Tyr Pro Ala Ser 75 Asn Phe Ser Thr Ala Val Pro Gln Ser Ala Thr Ala Met Leu Val Thr 85 Ala Leu Lys Asp Ser Arg Trp Phe Ile Pro Leu Glu Arg Gln Gly Leu 105 110 Gln Asn Leu Leu Asn Glu Arg Lys Ile Ile Arg Ala Ala Gln Glu Asn 120 125 Gly Thr Val Gly Val Asn Asn Arg Met Pro Leu Gln Ser Leu Thr Ala 135 140 Ala Asn Ile Met Val Glu Gly Ser Ile Ile Gly Tyr Glu Ser Asn Val 150 155 Lys Ser Gly Gly Ala Gly Ala Arg Tyr Phe Gly Ile Gly Ala Asp Thr 170 165 Gln Tyr Gln Leu Asp Gln Ile Ala Val Asn Leu Arg Val Val Asn Val 180 185 190 Ser Thr Gly Glu Ile Leu Ser Ser Val Thr Thr Ser Lys Thr Ile Leu 200 205 Ser Tyr Glu Val Gln Ala Gly Val Phe Arg Phe Ile Asp Tyr Gln Arg 215 220 Leu Leu Glu Gly Glu Ile Gly Tyr Thr Ser Asn Glu Pro Val Met Leu 230 235 Cys Leu Met Ser Ala Ile Glu Thr Gly Val Ile Phe Leu Ile Asn Asp 250 Gly Ile Asp Arg Gly Leu Trp Asp Leu Gln Asn Lys Ser Asp Val Ser 265 Asn Ala Val Leu Val Lys Tyr Arg Glu Met Ser Val Pro Pro Glu Ser

<sup>&</sup>lt;210> 6323

<sup>&</sup>lt;211> 189

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

<400> 6323 Arg Asn Lys Asn Met Asn Glu Phe Ser Ile Leu Cys Arg Val Leu Gly 10 Thr Leu Tyr Tyr Arg Gln Pro Gln Asp Pro Leu Leu Val Pro Leu Phe 25 Thr Leu Ile Arg Glu Gly Lys Leu Ala Gln Ser Trp Pro Leu Glu Gln 40 Asp Glu Leu Leu Glu Arg Leu Gln Lys Ser Cys Asp Met Gln Gln Ile 55 Ser Thr Asp Tyr Asn Ala Leu Phe Val Gly Glu Glu Cys Arg Val Ser 70 Pro Tyr Arg Ser Ala Trp Gln Glu Gly Ala Thr Glu Ala Glu Val Arg 90 Ala Phe Leu Ser Glu Arg Gly Met Pro Leu Thr Asp Met Pro Ala Asp 105 His Ile Gly Thr Leu Leu Ala Ala Ser Trp Ile Glu Asp Asn Ala 120 Gly Asp Asp Glu Asn Glu Ala Ile Glu Thr Leu Phe Glu Thr Tyr Leu 135 Leu Pro Trp Val Gly Thr Phe Leu Gly Lys Val Glu Ala His Ala Thr 150 155 Ser Pro Phe Trp Arg Thr Leu Ala Pro Leu Thr Arg Asp Ala Ile Ala 165 170 Ala Met Trp Asp Glu Leu Glu Glu Glu Asn Glu Glu

<210> 6324

<211> 193

<212> PRT

<213> Enterobacter cloacae

<400> 6324

Leu Glu Ser Gln Lys Ser Cys Asn Asp Thr Phe Gln Leu Ala Arg Asn 10 Val Leu Leu Ile Ser Phe Leu Trp Cys Ala Ser Ala Lys Met Arg Thr 25 Met Asn Ile Leu Leu Cys Ile Ala Ile Thr Thr Gly Ile Leu Ser Gly 40 Leu Trp Ser Trp Val Ala Val Ser Leu Gly Leu Leu Ser Trp Ala Gly 55 Phe Leu Gly Cys Thr Ala Tyr Phe Ala Cys Pro Gln Gly Gly Leu Lys 70 75 Gly Leu Phe Ile Ser Gly Cys Thr Leu Leu Ser Gly Val Val Trp Ala 90 Leu Val Ile Met Lys Gly Ser Ala Leu Ala Pro His Val Glu Ile Leu 105 Gly Tyr Ala Met Thr Gly Ile Val Ala Phe Leu Met Cys Val Gln Ala 120 Lys His Leu Leu Ser Phe Val Pro Gly Thr Phe Met Gly Ala Cys 135 140 Ala Thr Phe Ala Gly Gln Gly Asp Trp Lys Leu Val Val Pro Ser Leu 150 155 Met Leu Gly Leu Leu Phe Gly Tyr Ala Met Lys Asn Ser Gly Leu Trp 170 165 Leu Ala Ala Arg Arg Glu Lys Ser Gln Ser Val Pro Ala Val Ser Lys 180 185

<210> 6325 <211> 267 <212> PRT <213> Enterobacter cloacae <400> 6325 Arg Ile Ala Gln Leu Glu Gly Arg Leu Gly Val Arg Leu Ile Gln Arg Thr Thr Arg Gln Phe Ala Val Thr Glu Val Gly Gln Thr Phe Tyr Gln 20 His Cys Lys Ala Met Leu Val Glu Ala Glu Ala Ala Glu Glu Ala Val Ala Ala Leu Gln Asp Glu Pro Arg Gly Met Val Arg Ile Thr Cys Pro Val Thr Leu Leu His Val His Val Gly Pro Met Leu Ala Arg Phe Met Ala Arg Tyr Pro Gly Ile Asn Leu Gln Leu Glu Ala Thr Asn Arg Arg 85 Val Asp Leu Val Ala Glu Gly Val Asp Val Ala Ile Arg Val Arg Pro 105 100 Arg Pro Phe Asp Asp Ser Glu Leu Val Leu Arg Val Leu Ala Asp Arg 120 125 Gly His Cys Leu Val Ala Gly Pro Ala Leu Ile Glu Arg Met Gly Asn 135 140 Pro Ala Met Pro Ser Glu Leu Ser Glu Trp Pro Gly Leu Ser Met Gly 150 155 Ala Gly Lys His Leu His Lys Trp Glu Leu Asn Gly Pro Glu Gly Ala 165 170 175 Lys Ala Glu Ile His Phe Thr Pro Arg Leu Val Thr Thr Asp Met Leu 185 190 180 Ala Leu Arg Glu Ala Ala Met Ala Gly Val Gly Val Val Gln Leu Pro 200 Ile Leu Met Val Lys Asp Gln Leu Ala Ser Gly Glu Leu Val Arg Val 215 220 Leu Asn Ala Trp Glu Pro Arg Arg Glu Val Ile His Ala Val Tyr Pro 230 2.35 Ser Arg Arg Gly Leu Leu Pro Ser Val Arg Thr Leu Val Asp Phe Leu 245 250 Thr Glu Glu Tyr Ala Lys Met Val Glu Asp 260 <210> 6326 <211> 145 <212> PRT <213> Enterobacter cloacae <400> 6326 Leu Phe Val Gly Arg Val Şer Val Ala Pro Pro Asp Thr Ile Thr Ala Gly Ala Ala Lys Phe Glu Ser Pro Thr Gly Val Gln His Val Lys Lys 25 Lys Pro Ala Phe Ser Cys Glu Leu Phe Phe Lys Tyr Gly Gly Glu Gly 40 Gly Ile Asp Ser Leu Arg Ser Pro Phe Gly Gln Pro Val Arg Tyr Ala 55 Leu Ser Leu Ser Asn Trp Leu Ser Pro Val Ala Glu Pro Arg Ser Gly 70 75 Gly Leu Ile Pro Pro Tyr Glu Asn Ile Lys Glu Lys Ser Pro Tyr Phe 85 90 Arg Thr Ser Ser His His Glu Tyr Gly Gly Glu Gly Gly Ile Arg Thr

105

100

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2542
Pro Asp Thr Leu Pro Tyr Thr His Phe Pro Gly Val Leu Leu Gln Pro
                            120
Leu Gly His Leu Thr Ile Leu Ser Ser Arg Cys Cys Arg Asp Gly Arg
    130
                        135
                                            140
145
<210> 6327
<211> 317
<212> PRT
<213> Enterobacter cloacae
<400> 6327
Lys Ala Met Thr Met Asp Ile Ile Phe Tyr His Pro Thr Phe Asp Thr
                                    10
Ala Tyr Trp Ile Asn Ala Leu Thr Ala Ala Leu Pro Gly Ala Arg Val
                                25
Arg Glu Trp Lys Gln Gly Asp Asn Glu His Ala Asp Tyr Ala Leu Val
                            40
                                                45
Trp His Pro Pro Val Glu Met Leu Gln Gly Arg Arg Leu Lys Ala Val
Phe Ala Leu Gly Ala Gly Val Asp Ser Ile Leu Ser Lys Leu Lys Ala
                    70
                                        75
His Pro Glu Met Leu Pro Glu Asp Ile Pro Leu Phe Arg Leu Glu Asp
                8.5
                                    90
Thr Gly Met Gly Gln Gln Met Gln Glu Tyr Ala Val Ser Gln Val Leu
            100
                                105
His Trp Phe Arg Arg Phe Asp Asp Tyr Gln Ala Phe Lys Gln Gln Ser
                                                125
       115
                            120
His Trp Glu Pro Leu Pro Asp Tyr Gln Arg Glu Asp Phe Thr Ile Gly
                        135
                                            140
Ile Leu Gly Ala Gly Val Leu Gly Ser Lys Val Ala Glu Ala Leu Ala
                    150
                                        155
Pro Trp Gly Phe Pro Leu Arg Cys Trp Ser Arg Ser Arg Lys Glu Tyr
                                    170
               165
Pro Gly Val Glu Ser Phe Ala Gly Thr Asp Glu Leu Pro Ala Phe Leu
            180
                                185
                                                    190
Lys Gly Thr Arg Val Leu Ile Asn Leu Leu Pro Asn Thr Ala Glu Thr
                            200
                                                205
Val Gly Ile Ile Asn Gly Thr Leu Leu Asn Gln Leu Ala Glu Asp Ser
                        215
                                            220
Tyr Leu Met Asn Leu Ala Arg Gly Val His Val Val Glu Asp Asp Leu
                    230
                                        235
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<210> 6328 <211> 258 <212> PRT

<213> Enterobacter cloacae

245

<400> 6328

Leu Leu Ser Phe Gly Lys Thr Ala Glu Glu Arg Lys Met Tyr Pro Val

Leu Lys Ala Leu Asp Ser Gly Lys Leu Lys Gly Ala Met Leu Asp Val

Tyr Ser Arg Glu Pro Leu Pro Lys Asp Ser Pro Leu Trp Ala His Pro 265 Arg Val Ala Met Thr Pro His Ile Ala Ala Val Thr Arg Pro Ala Glu 280

Ala Val Ala Tyr Ile Ser His Thr Ile Ser Glu Ile Glu Lys Gly Asn

295

Ala Val Thr Gly Gln Val Asp Arg Gln Arg Ser Tyr 310

250

285

300

```
10
Asp Leu His Met His Thr Val Ala Ser Thr His Ala Tyr Ser Asn Leu
                                25
His Asp Tyr Ile Ala Gln Ala Lys Leu Lys Gly Ile Lys Leu Phe Ala
                            40
Ile Thr Asp His Gly Pro Asp Met Ala Asp Ala Pro His Tyr Trp His
                        55
Phe Val Asn Met Arg Ile Trp Pro Arg Leu Val Asp Gly Ile Gly Ile
                    70
                                        75
Leu Arg Gly Ile Glu Ala Asn Ile Lys Asn Thr Asp Gly Glu Ile Asp
Cys Thr Gly Pro Met Leu Thr Ser Leu Asp Leu Ile Leu Ala Gly Phe
                                105
            100
His Glu Pro Val Phe Ala Pro Gln Asp Lys Glu Thr Asn Thr Ala Ala
                            120
Met Ile Ala Thr Ile Ala Ser Gly Asn Val His Ile Ile Ser His Pro
                        135
Gly Asn Pro Lys Tyr Pro Ile Asp Ile Gln Ala Val Ala Gln Ala Ala
                    150
Ala Lys His Arg Val Ala Leu Glu Ile Asn Asn Ser Ser Phe Val His
                                    170
Ser Arg Lys Gly Ser Glu Ala Asn Cys Arg Glu Val Ala Ala Val
Arg Asp Ala Gly Gly Met Val Ala Leu Gly Ser Asp Ser His Thr Ala
                            200
Phe Thr Leu Gly Asp Phe Ser Glu Cys Leu Lys Ile Leu Arg Asp Val
                        215
                                            220
Asn Phe Pro Glu Glu Gln Ile Leu Asn Val Thr Pro Arg Arg Met Leu
                    230
                                        235
Asp Phe Leu Glu Ser Arg Gly Met Ala Pro Ile Asp Glu Phe Ala Asp
                                    250
Leu
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<210> 6329 <211> 509 <212> PRT

<213> Enterobacter cloacae

<400> 6329

Val Ile Thr Lys Lys Val Ser Asn Thr Lys Ala Trp Thr Gly Ser Leu 10 His Gly Asp Ala Thr Phe Gln Gly Asn His Asp Ser Gly Asp Ile Phe 20 25 Gln Thr Asn Ala Tyr Ala Cys Gly Pro Leu Ile Asp Gly Leu Leu Gly 40 Ala Lys Val Thr Gly Leu Leu Ser Arg Arg Ala Glu Asp Lys Ile Val 55 Asn Gly Tyr Asn Glu Gln Lys Met Arg Asn Gly Gly Ile Thr Leu Asn 70 75 Phe Thr Pro Asp Glu Lys Asn Asp Phe Asp Leu Asp Phe Ala Arg Glu Leu Gln Asp Arg Asn Ser Thr Pro Gly Met Ser Lys Ala Ala Glu Thr 105 Cys Arg Gly Thr Thr Cys Thr Pro Asn Thr Lys Ser Asp Ser Arg Tyr 120 Glu His Thr Thr Tyr Ser Leu Thr His Ser Gly Tyr Tyr Glu Asp Phe 135 140 Asn Thr Thr Ser Tyr Ile Gln Glu Glu Glu Thr Asn Asn Pro Gly Arg 150 155 Glu Met Arg Ser Tyr Asn Thr Thr Phe Asn Asn Gln Asn Gln Ile Phe

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165
                                    170
Leu Gly Asp His Thr Leu Thr Leu Gly Gly Gln Tyr Arg Tyr Glu Lys
           180
                               185
Leu Arg Asp Asn Gly Asn Gln Leu Glu Ala Ala Asp Gly Leu Asn Lys
                            200
                                                205
Leu Thr Arg Trp Ser Trp Ala Leu Phe Ala Glu Asp Glu Trp Ser Met
                        215
                                            220
Thr Glu Ser Phe Thr Leu Thr Gly Gly Leu Arg Met Asp Lys Asp Gln
                    230
                                        235
Asn Tyr Gly Thr Asn Trp Thr Pro Arg Gly Tyr Gly Val Trp His Leu
                245
                                    250
Ala Asp Gln Trp Thr Leu Lys Gly Gly Val Ser Ala Gly Tyr Arg Ala
                                265
                                                     270
            260
Pro Asp Leu Arg Gln Ser Ser Ala Ser Trp Gly Gln Val Thr Gly Gly
        275
                            280
Gly Arg Leu Asp Gly Ile Ile Val Gly Asn Pro Asp Leu Lys Pro Glu
                                            300
                        295
Lys Ser Leu Ser Glu Glu Leu Ala Leu Leu Trp Asp Asn Asn Asp Asp
                                        315
                    310
Leu Asn Ala Gly Val Thr Leu Phe Asn Thr Asp Phe Lys Asp Lys Ile
                325
                                    330
                                                         335
Thr Glu Val Arg Arg Cys Asn Ser Ser Ala Asp Pro Ala Cys Thr Ile
            340
                                345
                                                     350
Gly Gly His Ser Tyr Asp Phe Val Ser Asp Arg Val Asn Val Asp Lys
                            360
Ala Asn Met Arg Gly Val Glu Ser Ser Phe Gly Trp Lys Ile Thr Arg
                        375
                                             380
Asp Val Asn Trp Thr Ala Asn Tyr Thr Tyr Thr Glu Ser Glu Gln Lys
                    390
                                        395
Ser Gly Gln Phe Ser Gly Lys Pro Leu Asn Lys Met Pro Lys His Met
                                    410
Phe Asn Thr Thr Leu Asp Trp Gln Ala Thr Pro Asp Val Gly Phe Trp
                                                     430
                                425
Ser Arg Leu Asn Leu Arg Gly Lys Thr Ser Glu Tyr Leu Ser Arg Thr
                            440
Ser Met Ser Gln Gly Thr Pro Ser Tyr Thr Gln Val Asp Val Gly Met
                        455
Arg Tyr Asn Ala Asn Lys Asn Leu Leu Val Thr Ala Gly Val Tyr Asn
                    470
                                        475
Val Leu Asp Lys Gln Ile Asp Tyr Asp Thr Tyr Asp Thr Val Leu Asp
                485
                                    490 .
Gly Arg Arg Tyr Thr Val Gly Met Thr Tyr Ser Phe
<210> 6330
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<211> 368

<212> PRT

<213> Enterobacter cloacae

<400> 6330

 Ser Ile Leu Phe Leu Ser Gln Ser Ala Val Thr Phe Ser Gln Thr Lys

 1
 5
 10
 15

 Glu Lys Val Met Ser Glu Ile Thr Leu Gln His His Arg Thr Val Trp
 20
 25
 30

 His Phe Val Pro Gly Leu Ala Leu Ser Ala Val Val Thr Gly Val Ala
 45

 Leu Trp Gly Gly Ser Ile Pro Ala Val Ala Gly Ala Gly Phe Ser Ala
 50

 Leu Thr Leu Ala Ile Leu Leu Gly Met Val Val Gly Asn Thr Val Tyr

 65
 70
 75

 Pro His Ile Trp Lys Ser Cys Asp Gly Gly Val Ile Phe Ala Lys Gln

90 His Leu Leu Arg Leu Gly Ile Ile Leu Tyr Gly Phe Arg Leu Thr Phe 105 Ser Gln Ile Ala Asp Val Gly Val Ser Gly Ile Ala Ile Asp Val Leu 120 125 Thr Leu Ser Ser Thr Phe Leu Leu Ala Cys Phe Ile Gly Gln Lys Ile 135 140 Phe Gly Leu Asp Lys Gln Thr Ser Trp Leu Ile Gly Ala Gly Ser Ser 155 1.50 Ile Cys Gly Ala Ala Ala Val Leu Ala Thr Glu Pro Val Val Lys Ala 175 165 170 Glu Ala Ser Lys Val Thr Val Ala Val Ala Thr Val Val Ile Phe Gly 185 Thr Leu Ala Ile Phe Leu Tyr Pro Ala Met Tyr Pro Leu Val Ala His 200 Trp Phe Ser Pro Glu Thr Tyr Gly Ile Tyr Ile Gly Ser Thr Met His 220 215 Glu Val Ala Gln Val Val Ala Ala Gly His Ala Ile Asn Pro Glu Ala 230 235 Glu Asn Ala Ala Val Ile Ala Lys Met Leu Arg Val Met Met Leu Ala 250 245 Pro Phe Leu Ile Phe Leu Ala Ala Arg Val Lys Gln Leu Ala Pro Ala 265 270 Gly Ser Glu Lys Ser Lys Ile Thr Ile Pro Trp Phe Ala Ile Leu 275 280 285 Phe Ile Val Val Ala Val Phe Asn Ser Phe His Leu Leu Pro Lys Ala 300 295 Met Val Asp Met Leu Val Thr Leu Asp Thr Val Leu Leu Ala Met Ala 310 315 Met Ala Ala Leu Gly Ile Thr Thr His Val Ser Ala Leu Lys Lys Ala 325 330 Gly Ala Lys Pro Leu Leu Met Ala Leu Val Leu Phe Ile Trp Leu Ile 345 Val Gly Gly Ala Ile Asn Leu Ala Val His Ser Leu Leu Ala 360

<210> 6331

<211> 291

<212> PRT

<213> Enterobacter cloacae

## <400> 6331

Ala Phe Arg Val Asn Arg Ser Leu Phe Met Lys Tyr Val Gly Ala His 10 Val Ser Ala Ala Gly Gly Leu Ala Asn Ala Ile Arg Ala Ala Glu 25 Ile Glu Ala Thr Ala Phe Ala Leu Phe Thr Lys Asn Gln Arg Gln Trp Arg Ala Ala Pro Leu Thr Ala Glu Val Ile Asp Asp Phe Lys Ala Ala Cys Glu Lys Tyr Gly Tyr Gly Pro Gly Gln Ile Leu Pro His Asp Ser 70 75 Tyr Leu Ile Asn Leu Gly His Pro Val Ala Glu Ala Leu Glu Lys Ser 90 8.5 Arg Glu Ala Phe Leu Asp Glu Val Gln Arg Cys Glu Gln Leu Gly Leu 100 105 110 Thr Leu Leu Asn Phe His Pro Gly Ser His Leu Met Gln Ile Asp Glu 120 125 Asp Ala Cys Leu Ala Arg Ile Ala Glu Ser Ile Asn Met Thr Leu Asp 135 140

Lys Thr Gln Gly Val Thr Ala Val Ile Glu Asn Thr Ala Gly Gln Gly

150 155 Ser Asn Leu Gly Phe Lys Phe Glu His Leu Ala Ala Ile Ile Asp Gly 165 170 Val Glu Asp Lys Ser Arg Val Gly Val Cys Ile Asp Thr Cys His Ala 180 185 190 Phe Ala Ala Gly Tyr Asp Leu Arg Thr Thr Glu Ala Thr Lys Asn Thr 200 205 Phe Glu Glu Phe Glu Arg Ile Val Gly Phe Lys Tyr Leu Arg Gly Met 220 215 His Leu Asn Asp Ala Lys Ser Ala Phe Gly Ser Arg Val Asp Arg His 235 230 His Ser Leu Gly Glu Gly Asn Ile Gly His Asp Ala Phe Arg Phe Ile 245 250 Met Gln Asp Val Arg Phe Glu Gly Ile Pro Met Val Leu Glu Thr Ile 265 Asn Pro Asp Ile Trp Ala Glu Glu Ile Phe Trp Leu Lys Ala His Gln 280 Thr Pro 290 <210> 6332 <211> 291 <212> PRT <213> Enterobacter cloacae <400> 6332 Ala Thr Met His Ile Thr Leu Arg Gln Leu Glu Val Phe Ala Glu Val 10 Leu Lys Ser Gly Ser Thr Thr Gln Ala Ser Gln Met Leu Ala Leu Ser 20 25 Gln Ser Ala Val Ser Ala Ala Leu Thr Asp Leu Glu Gly Gln Leu Gly 40 4.5 Val Gln Leu Phe Asp Arg Val Gly Lys Arg Leu Val Val Asn Glu His 55 Gly Arg Leu Leu Tyr Pro Arg Ala Leu Ala Leu Leu Glu Gln Ala Thr 70 75 Glu Ile Glu Gln Leu Phe Arg Glu Asp Asn Gly Ala Ile Arg Val Tyr 8.5 90 Ala Ser Ser Thr Ile Gly Asn Tyr Ile Leu Pro Glu Val Ile Ala Arg 105 100 Tyr Arg Arg Asp Phe Pro Thr Leu Pro Leu Glu Met Ser Val Gly Asn 120 115 125 Ser Gln Asp Val Ile Asn Ala Val Ile Asp Phe Arg Val Asp Ile Gly 135 140 Leu Ile Glu Gly Pro Cys His Asn Val Asp Ile Ile Ala Glu Pro Trp 150 155 Leu Glu Asp Glu Leu Val Val Phe Ala Ser Pro Ala Ser Ser Leu Leu 170 Gln Gly Glu Val Thr Leu Glu Arg Leu Ala Gln Ala Gln Trp Ile Leu 185 Arg Glu Gln Gly Ser Gly Thr Arg Glu Ile Val Asp Tyr Leu Leu 200 Ser His Leu Pro Gln Phe Gln Leu Gly Met Glu Leu Gly Asn Ser Glu 220 215 Ala Ile Lys His Ala Val Arg His Gly Leu Gly Ile Ser Cys Leu Ser 230 235 Arg Arg Val Ile Ala Glu Gln Leu Glu Thr Gly Ser Leu Val Glu Ile 245 250 Pro Val Pro Leu Pro Lys Leu Val Arg Thr Leu Trp Cys Ile His His 260 265 Arg Gln Lys His Leu Ser Ser Leu Gln Arg Phe Leu Arg Tyr Cys

285

275 280

290

<210> 6333

<211> 519

<212> PRT

<213> Enterobacter cloacae

<400> 6333

Ser Ser Leu Ile Thr Glu Tyr Phe Cys Arg Lys Gln Arg Arg Ser Ser Ala Thr Ile Ala Pro His Leu Leu Asn Gly Gln His Phe His Met Val Ser Glu Thr Lys Thr Thr Gln Ala Pro Ala Leu Arg Arg Ala Leu Lys Ala Arg His Leu Thr Met Ile Ala Ile Gly Gly Ser Ile Gly Thr Gly Leu Phe Val Ala Ser Gly Ala Thr Ile Ser Ala Ala Gly Pro Gly Gly

70 Ala Leu Phe Ser Tyr Ile Leu Ile Gly Leu Met Val Tyr Phe Leu Met 85

Thr Ser Leu Gly Glu Leu Ala Ala Tyr Met Pro Val Ser Gly Ser Phe 105

Ser Thr Tyr Gly Gln Lys Tyr Val Glu Glu Gly Phe Gly Phe Ala Leu 120

Gly Trp Asn Tyr Trp Tyr Asn Trp Ala Val Thr Ile Ala Val Asp Leu 135 140

Val Ala Ala Gln Leu Val Met Thr Trp Trp Phe Pro Asp Thr Pro Gly 150 155

Trp Ile Trp Ser Ala Leu Phe Leu Ala Val Ile Phe Leu Leu Asn Tyr 170 165

Ile Ser Val Arg Gly Phe Gly Glu Ala Glu Tyr Trp Phe Ser Leu Ile 180 185 190

Lys Val Ala Thr Val Ile Ile Phe Ile Val Val Gly Val Ala Met Ile 200

Val Gly Ile Phe Lys Gly Ala Glu Pro Ala Gly Trp Ser Asn Trp Thr 215 220

Ile Gly Asp Ala Pro Phe Ala Gly Gly Phe Ser Ala Met Ile Gly Val 230 235

Ala Met Ile Val Gly Phe Ser Phe Gln Gly Thr Glu Leu Ile Gly Ile 245 250

Ala Ala Gly Glu Ser Glu Asn Pro Glu Lys Asn'Ile Pro Arg Ala Val 265 260

Arg Gln Val Phe Trp Arg Ile Leu Leu Phe Tyr Val Phe Ala Ile Leu 280 285

Ile Ile Ser Leu Ile Ile Pro Tyr Thr Asp Pro Ser Leu Leu Arg Asn 295 300

Asp Val Lys Asp Ile Ser Val Ser Pro Phe Thr Leu Val Phe Gln His 310 315

Ala Gly Leu Leu Ser Ala Ala Ala Val Met Asn Ala Val Ile Leu Thr 330

Ala Val Leu Ser Ala Gly Asn Ser Gly Met Tyr Ala Ser Thr Arg Met 345

Leu Tyr Thr Leu Ala Cys Asp Gly Lys Ala Pro Arg Ile Phe Ser Lys 360 365

Leu Ser Arg Gly Gly Val Pro Arg Asn Ala Leu Tyr Ala Thr Thr Val 375 380

Ile Ala Gly Leu Cys Phe Leu Thr Ser Met Phe Gly Asn Gln Thr Val 390 395 Tyr Leu Trp Leu Leu Asn Thr Ser Gly Met Thr Gly Phe Ile Ala Trp

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2548

	2548										
	405				410					415	
Leu Gly Ile	Ala Ile 420	Ser Hi	s Tyr	Arg 425	Phe	Arg	Arg	Gly	Tyr 430	Val	Lys
Gln Gly His 435	Asp Leu	Asn As	n Leu 440	Pro	Tyr	Arg	Ser	Gly 445	Phe	Phe	Pro
Leu Gly Pro 450	Ile Phe	Ala Ph 45		Leu	Cys	Leu	Ile 460	Ile	Thr	Leu	Gly
Gln Asn Tyr 465	Glu Ala	Phe Le 470	u Ala	Asp	Thr	Ile 475	Asp	Trp	Gly	Ala	Val 480
Thr Ala Thr	Tyr Ile 485	_	e Pro	Leu	Phe 490	Leu	Ile	Ile	Trp	Phe 495	Gly
Tyr Lys Leu	Thr Lys	Gly Th	r Arg	Phé 505	Val	Arg	Tyr	Ser	Glu 510	Met	Asp
Phe Pro Glu 515	Arg Phe	Lys									
<210> 6334 <211> 203 <212> PRT <213> Enterobacter cloacae											
<400> 6334											
Arg Thr Gly 1	Lys Met 5	Ser Se	r Leu	Asp	Ser 10	Glu	Ala	Lys	Pro	Asp 15	Asn
Ala Gly His	20			25					30		
Ser Ser Ser 35			40					45			
Ile Ala Asp 50		55			_		60	_			_
His Met Ala 65		70				75					80
Tyr Leu Ser	85				90					95	
Ala Glu Asn	100			105					110		
Thr Asp Val 115 Lys Gln Phe			120					125			
130 Asp Phe Thr		. 13	5				140				
145 Asp Arg Asn	_	150				155					160
Leu Ser Arg	165				170					175	
His Asp His	180	_		185			-		190		
195			200								
<210> 6335 <211> 391 <212> PRT <213> Enterobacter cloacae											
<400> 6335											
Ala Ala Val	Ile Arg	Gln Th	r Lys	Leu	Leu 10	Gly	Phe	Ser	Thr	Arg 15	Met
Ile Thr Thr	Gly Val	Cys Gl	u Pro	Ser 25		Tyr	Pro	Trp	Gln 30		Leu
Arg Val Asp 35		Glu Se	r Gly 40		Ser	Pro	Leu	Ser 45		Leu	Arg

Val Ile Cys Ala Phe Phe Arg Gly Glu Gln Val Lys Ala Ile His Asn 55 Thr Lys Ser Leu Val Glu Ala Leu Val Glu His Glu Gly Phe Arg Lys 70 75 Trp Ile Cys Ile Asp Gly Asn Ser Ile Arg Phe Arg Val Tyr Lys Asn 90 Gly Ser Met His Ile Asp Val His Pro Asp Ile Ala Glu Arg Leu Asn 105 Asn Ile Leu Ser Ala Ile Val Pro Leu Ala Leu Pro Ala Asp Arg Met 120 Ala His Ser Lys Lys Ser Leu Glu Ala Phe Pro Val Leu Lys Gln Cys 135 140 Ile Asp Phe Asp Thr Arg Met Gln Leu Ser Glu Leu Met Phe Lys Asn 150 155 Asp Gly Asp Asn Lys Trp Ser Cys Trp Thr Ser Leu Gly Ser Leu Ala 170 165 Glu Arg Lys Ser Ser Ser Val Ala Ala Asp Thr Leu Arg Phe Leu Gly 180 185 Ala Thr Val Thr Lys Tyr Asp Val Thr Phe Ser Tyr Asp Pro Cys Glu 200 Val Ile Arg Tyr Ile Gly Gln Ile Gly Glu Met Pro Asp Ile Val Ser 215 His Gln Phe Tyr Pro Ser Ser Cys Arg Ile Ser Glu Tyr Val Tyr Ser 230 235 Leu Leu Gly Ala Gly Glu Gly Asp Thr Leu Leu Glu Pro Asn Ile Gly 245 250 His Ala Asp Leu Leu Lys Ser Phe Pro Ala Gly Val Ile Val Thr Gly 265 Ile Glu Leu Asp Thr Leu Asn Cys Leu Ile Ser Arg Ala Lys Gly Tyr 280 Asp Thr Thr Glu Ala Asp Phe Leu Thr Trp Ser Lys Ser Asn Gln Gln 295 300 Lys Lys Phe Asp Tyr Val Val Met Asn Pro Pro Phe Ala Asp Asn Arg 310 315 Ala Arg Leu His Leu Gln Ala Ala Ala Ser His Leu Ala Ala Gly Gly 330 Ser Leu Ala Ala Val Leu Pro Leu Ser Leu Gln Gly Leu Asp Asn Leu 345 Leu Gly Glu Glu Phe Arg Thr Glu Trp Met Asp Val Phe Glu Asn Glu 360 Phe Glu Asn Thr Thr Val Ser Val Arg Ile Leu Tyr Ala Glu Arg Ile 375 380 Gln Gln Glu Glu Val Leu 390 <210> 6336 <211> 396

<212> PRT

<213> Enterobacter cloacae

<400> 6336

Ala Glu Lys Cys Asn Gly Ala Pro Met Ser Val Leu Leu Thr Glu Pro 1 10 15

Thr Gln Gln Ala Asn Asp Lys Val Phe Lys Thr Ala His Val Ala Phe 20 25 30

Ser Val Val Thr Gly Thr Gly Arg Tyr Val Thr Gly Leu Lys Gln Phe 35 40 45

Arg Asp Ala Asn Pro Glu Leu Cys Thr Glu Val Ser Asp Gln Lys Ala 50 55 60

Trp Ala Ile His Pro Ser Val Ile Gln Val Thr Pro Gly Phe Asn Ser

Arg Glu Met Gly Met Gly Asp Asp Tyr Tyr Lys Leu Pro Glu Val Glu 90 Glu His Ile Tyr Asn Ile Lys Asn Ala Tyr Ile Arg Gly Asp Tyr Val 100 105 Asp Pro Ile Arg Val Arg Val Ile Asp Gly Val Pro Phe Val Arg Gln 120 Gly His Cys Arg Leu Lys Ala Ala Met Met Ala Cys Asp Glu Asp His 135 140 Asp Ile Thr Ile Leu Cys Val Glu Ile Lys Glu Asp Glu Ile Gly Cys 150 155 Glu Leu Ala Thr Ile Asp Gly Asn Arg Gly Leu Ala Leu Ser Pro Val 170 Ala Leu Gly Glu Ser Tyr Arg Arg Leu His Ser Leu Ala Gly Trp Ser 185 Leu Glu Arg Ile Ala Gln Arg Glu Asn Lys Ser Pro Thr Thr Ile Ser 200 Ser Leu Ile Arg Leu Thr Thr Cys Ser Val Val Ile Lys Lys Trp Ile 215 220 His Ala Asp Ala Ile Ser Tyr Val Asn Val Leu Ser Leu Ile Asp Glu 230 235 Leu Gly Glu Thr Glu Ala Ile Ser Arg Ile Lys Lys Met Ile Ala Glu 250 245 Leu Glu Gln Ala Asp Ala Asn Gly Ile Thr Val Lys Lys Thr Gln His 265 Gly Gln Val Arg Val Arg Pro Ser Asp Phe Lys Pro Ala Arg Ile Pro 280 285 Pro Val Ile Ala Thr Lys Ala Val Glu Gly Val Lys Leu Ile Thr Thr 300 295 Ser Leu Leu Gln Lys Leu Gly Asp Ile Glu Leu Pro Glu Met Thr Asp . 315 310 Ser Ser Ala Asp Glu Glu Ile Asn Ile Thr Leu Asn Arg Ser Thr Leu 330 325 Glu Met Leu Arg Asn Leu Ser Lys Glu Ile Thr Glu Ser Glu Asn Lys 340 345 Gln Leu Arg Arg Ala Glu Asn Arg Gln Ala Lys Leu Asn Gly Glu Lys 360 Pro Lys Tyr Pro Arg Lys Lys Asn Ala Lys Lys Ala Gly Glu Glu Thr 375 380 Asp Gln Asp Thr Asp Pro Gln Pro Asp Ala Glu 390

<210> 6337

<211> 286

<212> PRT

<213> Enterobacter cloacae

<400> 6337

Ile Ser Leu Ser Gly Ile Asp Thr Leu Thr Arg His Leu Arg His Met 10 Pro Ile Ile Lys Trp Ala Gly Gly Lys Thr Lys Leu Met Pro Phe Ile 25 Ser His His Tyr Pro His Asp His Ser Cys Arg Trp Val Glu Pro Phe 40 Ile Gly Gly Gly Ala Val Phe Leu Asn Met Phe Ala Gln Asn Ala Leu 55 60 Leu Ala Asp Ser Asn Pro Asp Leu Ile Asn Leu Tyr Arg Thr Ile Gln 70 75 Arg Gln Lys Thr Asn Phe Ile Asn Gln Val Gln Asn Leu Ala Asp Lys 85 90 Thr Phe Val Glu Lys Asp Tyr Tyr Glu Met Arg Asp Arg Phe Asn Lys 105 110

Thr Cys Ile Ser Gly Gln Pro Leu Gln Arg Ala Ala Leu Phe Tyr Ser 120 Leu Asn Arg Leu Gly Tyr Asn Gly Met Cys Arg Tyr Asn Ser Glu Arg 135 140 Ile Tyr Ser Val Pro Trp Gly Lys His Thr Glu Leu Lys Leu Asp Phe 150 155 Asn Lys Ile Asp Tyr Leu Ser Phe Arg Leu Ser Gly Ile Glu Leu Ile 170 165 Thr Ala Gly Phe Glu Glu Thr Leu Ala Ala Thr Gly Glu Gly Asp Gln 180 185 190 Ile Tyr Cys Asp Pro Pro Tyr Asp Lys Thr Ser Lys Thr Ser Phe Val 200 195 205 Ser Tyr Asp Gly Lys Pro Phe Ser Gln Ser Asp His Val Leu Leu Ala 210 215 220 Asn Met Leu Val Asp Ala His Arg Lys Gly Ala Ala Val Ala Ile Ser 230 235 Asn Ser Leu Thr Pro Phe Thr Leu Gly Leu Tyr Glu Glu Arg Gly Phe 245 250 Val Ile His Arg Leu Ser Ala Tyr Arg Ser Val Gly Ser Lys Pro Asn 265 Thr Arg Lys Thr Glu Thr Glu Ile Leu Ala Val Leu Lys 280

<210> 6338 <211> 199

<212> PRT

<213> Enterobacter cloacae

<400> 6338

Asp Cys Ile Thr Val Asp Cys Lys Cys Asp Phe Gln Arg Ile Val Leu 10 Ile Met Leu Lys Thr Leu Asn Val Ile Thr Asn Asn Asn Phe Tyr Phe 20 25 Tyr Ser Leu Ile Gly Ile Phe Ser Ala Asn Asp Val Leu Ala Asn Met 40 Tyr His Ile Lys Lys Ile Gly Ser Arg Asp Ile Ala Ser Trp Leu Lys 55 Glu Thr Gln Asp Asp His Ala Ile Val Met Ala Gly Pro Asp Thr Glu 70 75 Ser Leu Thr Lys Leu Ile Cys Thr Gln Arg Gly Tyr Asn Tyr Ile Ser 85 90 Ser Arg Ser Lys Val Lys Asp Met Met Gln Phe Phe Leu Lys Glu Tyr 100 105 110 Lys Pro Arg Lys Asn Ser Ala Tyr Leu Lys Ala Thr Asn Ser His Ile 120 125 Ser Thr Gln Asp Ile Lys Val Leu Ile Trp Val Ser Ser Gly Leu Lys 135 140 Pro Cys Asp Ile Ser Lys Arg Tyr Gly Ile Ser Ile Lys Thr Ile Ser 150 155 His His Lys Arg Asn Leu Met Lys Lys Leu Gln Ile Lys Ser Thr Met 165 170 Gln Leu Val Asp Val Ala Ser Gln Tyr Ser Leu Leu Cys Lys His Leu 185 180 Asn Thr Ser Cys Ala Leu

<210> 6339

195

<211> 2654

<212> PRT

<213> Enterobacter cloacae

<400> 6339 Met Arg Met Asn Lys Val Tyr Lys Val Ile Trp Asn His Ser Ala Gln 10 Arg Trp Asp Val Val Ser Glu Leu Thr Gly Ala Lys Lys Ser Lys 20 25 Ser Ser Arg Val Gly Ala Ala Ile Ser Pro Leu Val Leu Leu Thr Ala 40 Leu Thr Leu Asn Pro Gly Phe Ala Tyr Ala Asp Ile Met Leu Pro Asn 55 Asn Trp Leu Ser Ser Asn Gln Asn Asn Gly Val Gly Ala Ala Val Val 70 Asn Gly Thr Glu Glu Asn Ile Ile Gly Pro Gly Val Ile Ser Gly Pro 90 Ser Ser Gly Thr Ser Tyr Met Ser Ile Thr Asp Ala Gln Lys Ala Gly 105 100 Tyr Ile Ile Ser Gly Asp Asp Leu Ser Gly Leu Val Tyr Thr Asp Ile 120 125 Gly Lys Arg Thr Arg Thr Val Gln Tyr Tyr Asp Ser Ile Thr Gly Ala 130 · 135 140 Asn Gln Thr Val Met Val Tyr Asp Ser Gly Thr Phe Ser Glu Ser Glu 155 145 150 Ala Ala Ser Asn Val Thr Val Pro Val Phe Ser Pro Gly Ala Asn Phe 165 170 Phe Tyr Lys Thr Arg Leu Val Thr Ala Lys Asn Gly Gly Thr Ala Asn 180 185 Ile Asp Val Lys Ala Ser Ser Ile Gly Ser Tyr Phe Lys Asp Ser Gln 200 205 195 Leu Val Val Ala Asp Gly Thr Asn Ser His Ala Asn Trp Asn Ser Gln 215 220 Asn Asn Phe Tyr Phe Gln Ala Ala Ala Arg Val Thr Asp Ser Ala Val 230 235 Tyr Asn Lys Thr Ile Asn Phe Ser Asn Tyr Thr Gly Ser Phe Thr Asp 250 245 Trp Glu Gly Lys Glu His Val Val Asn Ser Val Ala Asp Leu Gln Ser 265 270 260 Tyr Asn Asp Tyr Leu Ala Glu Ala Leu Lys Asp Gly Arg Leu Pro Pro 275 280 Gly Gln Tyr Glu Ala Glu Phe Asn Lys Ala Ile Gln Tyr Glu Ser Lys 295 300 Asp Tyr Ile Ile Asp Lys Thr Ala Gly Gly Thr Ile Asp Ser Ser Pro 315 310 Tyr Asn Ser Pro Val Gly Thr Leu Ala Val Leu Ser Ala Thr Asn Gly 325 330 Gly Thr Val Thr Leu Ser Ser Gly Arg Leu Thr Gly Val Leu Pro 345 Ala Tyr Gly Tyr Gly Ala Gly Val Val Ala Ser Ser Gly Gly Thr Gly 360 Ile Asn Glu Gly Val Ile Asp Ala Thr Gly Ala Ala Met Arg Ala Tyr Gln Asp Gly Thr Val Ile Asn Asn Gly Thr Ile Tyr Val Trp Asp Asn 390 395 Asn Thr Lys Tyr Thr Leu His Gly Glu Gly Met Leu Ala His Asn Ala 405 410 Asn Ala Lys Ala Val Asn Asn Gly Val Ile Asn Val Arg Pro Trp Lys 425 420 Asn Ser Phe Thr Pro Tyr Gly Ile Asn Thr Ala Met Leu Leu Ser Asp 435 440 445 Gly Gly Glu Gly Thr Asn Asn Gly Val Ile Asn Ile Thr Ala Asp Ala 455 460 Ser Thr Leu Asp Asn Asn Gly Ala Thr Arg Gly Ile Ser Val Ser Asp 470 475

Gly Gly Thr Phe Ile Asn Ala Gly Asn Gly Lys Ile Thr Val Gly Val 485 490 Asn Ala Gly Gly Thr Lys Ser His Ser Ala Val Asp Ser Ile Ala Ile 500 505 Asp Ile Gly Lys Gly Ala Thr Lys Val Val Asn Glu Gly Asp Ile Ile 520 Leu Gly Gln Gly Ala Gln Gly Asp Tyr Gly Val Ser Ala Val Asp Ala 535 Gly Thr Val Asn Phe Ile Asn Thr Gly Thr Ile Ser Val Glu Gly Gln 550 555 Asp Ser Ala Thr Pro Ala Leu Asn Ala Gly Ile Arg Ser Ser Asn Ser 565 570 Ser Gly Leu Val Asn Ser Gly Ile Ile Asn Val Asn Gly Thr Asn Asn 580 585 Ser Gly Ile Leu Ala Glu Asn Gly Gly Ser Val Leu Ser Asp Gly Leu 600 Ile Asn Val Gly Ser Val Ser Ala Gly Ser Gly Tyr Arg Asn Tyr Gly 615 620 Ala Trp Val Asp Gly Ala Ala Ser Ser Val Asp Val Ser Gly Gln Ile 630 635 Asn Leu Ile Gly Ser Gly Ala Ile Gly Ala Phe Ala Asp Asn Ala Gly 645 650 Ser Leu Ile Leu Ser Gly Thr Gly Ser Ile Ala Phe Asn Asp Ala Glu 665 Gln Ile Gly Phe Tyr Val Asn Gly Lys Gly Ser Ser Val Asn Asn Thr 680 Gly Ser Gly Thr Phe Asp Val Ser Ser Arg Asp Ser Ser Met Phe Arg 695 700 Ile Ala Gly Gly Ala Ser Phe Leu Gly Asn Ser Asp Ala Ser Ser Thr 710 715 Ile Thr Val Ser Gly Glu Asn Ser Leu Ala Leu Val Val Thr Gly Ser 725 730 Ser Asp Gln Gly Asp Val Ser Thr Ile Asn Thr Gly Gly Met Ala Ile 745 Gln Leu Ser Gly Asn Asp Ser Thr Gly Leu Arg Val Glu Gly Gly Ala 760 Leu Gly Thr Ile Asp Ala Asn Thr Thr Ile Asn Leu Asn Ala Val Ser 775 780 Ser Ile Ala Ala Val Ala Asp Gly Asn Gly Tyr Asp Ile Ser Gly Asn 790 795 Leu Ile Asn Lys Glu Asp Asn Ala Thr Ser Leu Thr Ala Ser Ala Gln 810 Leu Thr Ser Ser Leu Asp Ser Val Thr Gly Tyr Ile Ala Arg Asn Gly 825 Ala Ser Leu Asp Asn Ala Gly Asp Ile Ile Phe Thr Gly Ser Lys Thr 840 845 Thr Gly Met Arg Val Glu Glu Gly Ala Thr Gly Thr Asn Ser Gly Asn 855 860 Ile Thr Val Glu Asp Gly Gly Ala Gly Leu Ile Ala Ala Ser Gly Gly 870 875 Lys Asn Thr Val Ile Asn Asn Thr Gly Asn Leu Ile Leu Lys Gly Gly 885 890 Asp Asn Ala Asn Arg Thr Thr Gly Ile Lys Ala Ser Gly Pro Gly Thr 905 Val Ile Asn Met Asn Ala Gly Asn Ile Glu Leu Gln Gly Gln Gly Ala 920 Val Gly Val Glu Val Ser Asp Glu Gly Thr Val Asn Leu Ile Gly Ser 935 940 Ala Val Pro Gln Phe Ala Asp Glu Ser Thr Gly Ile Thr Asp Gln Ile 950 955 Ala Phe Arg Ile Lys Gly Ser Gly Ala Gln Ile Asn Thr Ser Ile Ala

Pro Gly Thr Leu Leu Asp Ala Thr Gly Lys Asp Ser Ile Leu Phe Arg Ile Glu Asp Gly Ala Gln Gln Ala Gly Thr Leu Gln Met Lys Thr Ser Gly Thr Gly Ser Ser Gly Ile Trp Val Thr Gly Thr Gly Ser Lys Val Val Ala Gly Ser Gly Ser Asp Phe Gln Ile Leu Gly Asp Asn Ala Lys Gly Leu Tyr Val Thr Gly Gly Ala Glu Ala Thr Leu Glu Gln Gly Val Ser Val Asn Leu Val Gly Asp Gly Ala Ile Val Ala Glu Val Asp Gly Asn Ala Tyr Gly Leu Asp Gly Ser Val Thr Gly Gln Asn Thr Gly Ser Val Leu Thr Asn Glu Ala Asp Ile Thr Thr Ala Leu Ser Asn Ala Thr Gly Phe Ile Thr Arg Asn Gln Gly Leu Leu Val Asn Asn Gly Asn Ile Asp Phe Thr Ala Gly Thr Asp Asn Ile Gly Ile Leu Val Asp Asp Gly Arg Phe Glu Asn Ser Gly Asn Ser Ile Ala Val Asn Gly Val Ala Leu Tyr Ile Lys Gly Ala Asn Ser Gln Val Asn Asn Thr Thr Gly Gly Asp Ile Ile Ala Val Asp Gly Glu Ala Ala Ile Lys Leu Gly Ala Gly Ala Ser Leu Asp Leu Ala Gly Asp Gly Phe Asp Gly Ser Ala Thr Ile Glu Gly Arg Gly Ser Ala His Gly Ile Leu Leu Asp Thr Gly Ala Thr Gly Leu Lys Leu Asn Gly Ala Val Ile Lys Val Ser Gly Leu Glu Thr Thr Gly His Gly Ile Glu Asn Arg Ala Glu Ile Glu Gly Ile Gln Leu Ser Asn Gly Ala Arg Ile Asn Val Ser Gly Gly Ile Gly Ile Arg Thr Ala Ala Pro Leu Ala Lys Lys Asn Gln Gly Val Ile Thr Val Arg Gly Ala Thr Gly Ile Ala Phe Gln Lys Ala Asp Gly Ser Ala Thr Asp Gly Leu Phe Asp Ile Ser Asp Ser Ser Glu Leu Tyr Phe Asp Val Glu Tyr Gly Thr Gly Ile Leu Val Asn Thr Thr Ala Asp Ala Val Val Lys Thr Asn Ala Asn Ile Trp Val Tyr Gly Glu Asp Gly Gly Ser Ala Ile Val Val Lys Asp Ser Ala Ser Glu Val Val Gln Ser Gly Glu Ile Phe Ser 1,355 Ala Ser Leu Ile Asn Asp Ala Ile Ile Ala Ser Arg Thr Ser Ser Phe Ile Asn Glu Gly Thr Ile Phe Ala Tyr Leu Gly Thr Ala Ile Ser Phe Ser Asp Asp Val Asp Ser Thr Leu Lys Asn His Gly Asn Ile Asp Gly Lys Val Lys Leu Asn Gly Gly Asn Asn Thr Leu Ile Asn Asn Gly Ser Val Gly Ala Leu Thr Ala Gly Asp Gly Asn Asn Thr Leu Asn Leu Asn Asp Gly Ser Tyr Leu Gln Asp Ala Thr Leu Gly Asn Gly Asn Asn Thr 

Ile Ile Phe Ser Gly Phe Ser Met Ala Gly Glu Ile Val Ala Gly Thr 1465 Gly Glu Asn Thr Phe Ile Ile Lys Asp Ser Asp Gly Leu Arg Phe Asp 1480 1485 Leu Leu Asp Gly Gly Met Gly Asp Ser Asp Lys Leu Ile Phe Asp His 1495 1500 Ala Gln Tyr Phe Thr Leu Asp Ser Ala Gly Lys Ile Lys Asn Ile Glu 1510 1515 Ser Val Arg Leu Asp Asn Asp Ser Asp Val Thr Ile Arg Glu Ala Leu 1525 1530 Leu Leu Thr Asp Asn Gly Ala Gly Pro Gly Ser Val Asp Ile His Asp 1545 1540 Asp Lys Ser Glu Leu Ser Val Arg Pro Ser Ala Pro Gly Gly Phe Thr 1560 1565 Phe Asp Pro Arg Leu Thr Gly Glu Gly Leu Leu Ser Val Glu Leu Asp 1570 1575 1580 Ala Ala Glu Ser Glu Phe Ser Phe Ser Gln Asn Val Gly Asn Ala Phe 1590 1595 Ser Gly Thr Leu Ala Leu Gly Lys Ser Asn Phe Val Leu Asp Gly Ile 1610 1605 Asn Thr Glu Ser Ile Thr Asn Ala Met Leu Ile Ser Glu Thr Asp Asn 1620 1625 Thr Thr Ile Val Gly Asp Gly Thr Gln His Ile Gly Gly Leu Gly Ile 1640 Asp Gly Gly Lys Leu Ile Phe Gly Thr Val Thr Pro Gly Asp Thr Val 1655 1660 Ala Ser Asn Ser Ile Val Thr Ser Glu Asp Gly Leu Leu Asp Ile Ser 1670 1675 Gly Lys Gly Thr Val Gln Val Thr Leu Pro Gly Glu Val Val Asn Val 1685 1690 Arg Pro Val Pro Asp Thr Gln Lys Asn Ile Leu Glu Gln Asp Asp Ala 1705 1700 1710 Glu Thr Leu Val Thr Leu Val Glu Ala Arg Gly Ala Val Lys Gly Thr 1715 1720 1725 Gly Ala Glu Leu Leu Thr Asp Glu Asn Gly Gly Val Ile Ser Asp 1735 1740 Ser Gln Ser Phe Asp Ile Thr Gln Asp Gly Thr Pro Val Ala Arg Gly 1750 1755 Thr Tyr Asp Tyr Lys Leu Met Ser Ser Lys Asp Gly Ile Ser Gly Asp 1765 1770 Gly Leu Tyr Ile Gly Tyr Gly Leu Lys Ser Ile Glu Leu Gln Gly Ile 1780 1785 1790 Ala Gly Asn Ala Leu Ile Leu Thr Pro Lys Asp Gly Ala Arg Gly Gln 1800 1805 Glu Ser Asp Leu Asn Ala Gln Leu Thr Gly Thr Gly Asp Leu Ala Ile 1815 1820 Asp Ala Gly Ser Asn Thr Val Thr Leu Ser Asn Gly Ser Asn Gly Tyr 1830 1835 Thr Gly Ser Thr Arg Val Leu Ser Gly Thr Leu Lys Met Ala Asn Asp 1850 1845 Asn Val Leu Gly Gln Thr Ala Asp Leu Ala Ile Asn Asn Gly Ala Ala 1865 Phe Ile Thr Asp Gly Phe Ser Gln His Val Gly Ala Ile Gln Thr Glu 1875 1880 1885 Ala Gly Ala Gly Ile Gln Leu Asp Ala Gly Ser Glu Leu Thr Ile Asp 1895 1900 Ser Thr Leu Arg Ala Ser Gly Glu Ala Ala Gly Gly Val Ile Glu Asp 1910 1915 Ser Ala Leu Tyr Gly Glu Gly Arg Leu Val Val Ser Asp Ser Ser Leu 1925 1930 Glu Val Lys Gly Gln Asn Ser Lys Phe Thr Gly Asp Val Thr Leu Glu

Ser Gly Ser Val Ala Glu Leu Glu Asn Ala Gln Gly Leu Gly Ser Leu Gly Thr Val Leu Leu Ser Gly Asn Asp Asp Thr Leu Lys Met Asp Ile Val Lys Gly Ser Asn Ser Ser Thr Ser Leu Thr Lys Ser Leu Ala Gly Lys Gly Thr Val Asp Ile Leu Asn Asn Thr Asp Leu Thr Leu Ser Gly Asp Asn Ser Asn Phe Ser Gly Thr Phe Asp Ile Gly Ser Glu Ala Ala Leu His Ala Ser Asp Ala Lys His Leu Gly Gln Ser Val Leu Gly Asn Glu Gly Ser Leu Tyr Leu Thr Ala Asn Asn Asp Trp Glu Leu Thr Asn Glu Ile Asn Gly Ala Gly Ser Leu Thr Lys Gln Gly Ser Gly Asn Leu Ile Ile Asn Arg Glu Leu Ser Tyr Thr Gly Ala Thr Arg Val Glu Ser Gly Thr Met Val Ile Gly Asp Asn Ser Lys Asp Ala Ala Gly Val Leu Ser Gly Thr Ser Val Val Thr Val Asn Ala Gly Ala Met Leu Ala Gly Thr Gly Thr Ile Ala Gly Asn Val Glu Asn Lys Gly Thr Ile Ala Ala Leu Asn Ser Leu Ser Gly Tyr Ser Asp Ala Gly Thr Gly Asn Phe Thr Val Gly Ala Leu Asn Asn Thr Gly Thr Leu Leu Leu Ala Gly Ser Glu 2165 · Thr Gly Asn Thr Leu Thr Val Asn Gly Asp Tyr His Gly Glu Gly Lys Leu Val Leu Asn Thr Val Leu Gly Gly Asp Asp Ser Leu Thr Asp Lys Leu Ile Val Lys Gly Asn Ala Ser Gly Lys Thr Asp Val Tyr Val Thr Asn Val Gly Gly Ser Gly Ala Gln Thr Gln Asn Gly Ile Glu Val Val Gln Val Asp Gly Gln Ser Ala Asp Asp Ser Phe Arg Leu Ala Lys Arg Ala Val Gly Gly Ala Tyr Glu Tyr Tyr Leu His Lys Gly Asp Ile Asn Gly Ala Gly Gly Asp Trp Tyr Leu Arg Ser Glu Leu Ser Pro Ala Pro Glu Pro Asp Thr Thr Pro Gly Pro Asp Thr Thr Pro Glu Pro Glu Pro Asn Pro Thr Pro Glu Pro Ala Pro Ala Pro Thr Pro Ala Pro Glu Pro Asp Gln His Gly Asp Lys Val Tyr Arg Pro Glu Ala Gly Ser Tyr Ile Ala Gly Ile Ala Ala Ser Asn Thr Leu Phe Asn Thr Arg Leu His Asp Arg Ala Gly Glu Thr Tyr Tyr Thr Asp Val Leu Thr Gly Glu Gln Ala Val Thr Ser Met Trp Met Arg His Val Gly Gly His Asn Val Trp Lys Asp Gly Ser Ser Gln Leu Asn Thr Gln Ser Asn Arg Tyr Val Leu Gln Leu Gly Gly Asp Ile Ala Gln Trp Thr Asp Gly Lys Asp Arg Leu His Leu Gly Val Met Gly Gly Tyr Gly Asn Glu Lys Ser Ser Thr Thr Ser 

Ser Leu Ser His Tyr Lys Ser Arg Gly Thr Val Asn Gly Tyr Ser Leu 2440 Gly Met Tyr Ala Thr Trp Gln Gln Asn Glu Gly Glu Ser Gly Ala 2455 2460 Tyr Val Asp Thr Trp Ala Gln Tyr Ser Trp Phe Asp Asn Thr Val Lys 2470 2475 Gly Glu Gln Leu Ala Gln Glu Thr Trp Lys Ser Ser Gly Ile Thr Ala 2485 2490 Ser Ala Glu Ala Gly Tyr Thr Phe Asn Ala Gly Lys Phe Lys Gly Ser 2500 2505 2510 His Gly Ser Glu Tyr Asn Trp Tyr Ile Gln Pro Gln Ala Gln Ile Thr 2515 2520 2525 Trp Met Asn Val Arg Ser Glu Asp His Arg Glu His Asn Gly Thr Lys 2535 2540 Ile Ser Ala Gln Gly Glu Gly Asn Val Gln Ser Arg Val Gly Leu Arg 2550 2555 Thr Tyr Leu Lys Gly Lys Ser His Leu Asp Ser Glu Lys Glu Arg Thr 2565 2570 Phe Glu Pro Phe Ile Glu Ala Asn Trp Ile His Asn Thr Arg Ser Trp 2585 2580 2590 Gly Val Arg Met Asp Asp Ala Leu Val Thr Gln Asp Gly Ala Arg Asp 2595 2600 2605 Val Gly Glu Ile Lys Thr Gly Val Glu Gly Gln Ile Ser Lys Asn Leu 2615 2620 Asn Val Trp Gly Asn Val Gly Val Gln Ile Gly Asp Lys Gly Tyr Asn 2630 2635 Asp Thr Gln Ala Met Leu Gly Ile Lys Tyr Ser Phe Lys 2645

<210> 6340 <211> 416 <212> PRT

<213> Enterobacter cloacae

<400> 6340

Arg Lys Pro Asp Arg Asp Arg Gly Glu Lys Ser Arg Arg His Arg Gly 10 Ala Asp Gly Gly Thr Arg Met Ser Val Ile Ile Val Gly Gly Gly 25 Met Thr Gly Ala Thr Leu Ala Leu Ala Ile Ser Gln Leu Thr Lys Gly 40 Gln Leu Pro Val His Leu Val Glu Ala Val Ala Pro Gln Ala Ala Asp 55 60 His Pro Gly Phe Asp Ala Arg Ala Ile Ala Leu Ala Gln Gly Thr Cys 70 75 Gln Gln Leu Ala Arg Ile Gly Ile Trp Gln Ala Ile Ala Asp Cys Ala 90 Thr Ala Ile Gly Thr Val His Val Ser Asp Arg Gly His Ala Gly Phe 105 Val Thr Leu Asp Ala His Asp Tyr Leu Ile Glu Ala Leu Gly Gln Val 120 ..Val Glu Leu His Asp Val Gly Leu Arg Leu Phe Arg Leu Leu Gln Asp 135 140 Ala Pro Gly Val Thr Leu His Cys Pro Ala Arg Val Ala Ser Phe Ser 150 155 Arg Arg Asp Glu Ala Val Ser Val Thr Leu Asp Asn Gly Thr Thr Leu 165 170 Glu Gly Gln Leu Leu Val Ala Ala Asp Gly Ser Arg Ser Ala Ile Ala 180 185 190 Thr Gln Cys Gly Val Glu Trp Arg Ser Glu Pro Tyr Gly Gln Ala Ala

200

Val Ile Ala Asn Val Ser Thr Ala Gly Ala His Asn Gly Arg Ala Phe 215 220 Glu Arg Phe Thr Glu His Gly Pro Leu Ala Met Leu Pro Met Ser Asn 230 235 Gly Arg Cys Ser Leu Val Trp Cys His Ala Gln Asp Arg Ala Asp Glu 245 250 Val Leu Ser Trp Ser Asp Glu Arg Phe Cys Ser Glu Leu Gln Lys Ala 260 265 Phe Gly Trp Arg Leu Gly Arg Ile Thr His Ala Gly Lys Arg Val Ala 280 275 Tyr Pro Leu Ala Leu Thr Thr Ala Ser Gln Thr Val Ser His Arg Val 295 300 Ala Leu Val Gly Asn Ala Ala Gln Thr Leu His Pro Ile Ala Gly Gln 310 315 Gly Phe Asn Leu Gly Leu Arg Asp Val Met Ser Leu Ala Glu Leu Leu 325 330 Ala Arg Thr Trp Ser Glu Gln Gln Asp Cys Gly Ala Tyr Ser Val Leu 345 Ser His Tyr Gln Lys Arg Arg Gln Ala Asp Lys Ala Ala Thr Ile Gly 360 Val Thr Asp Gly Leu Val His Leu Phe Ala Asn Arg Trp Ala Pro Leu 375 380 Val Ala Gly Arg Asn Leu Gly Leu Met Ala Met Glu Leu Phe Ile Pro 390 395 Ala Arg Asp Val Leu Ala Gln Arg Thr Leu Gly Trp Val Ala Arg

<210> 6341 <211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 6341

Gly Val Leu Thr Val Gln Asn Val Asp Val Ala Ile Val Gly Gly Gly 10 Met Val Gly Leu Ala Leu Ala Cys Gly Leu Gln Gly Ser Gly Leu Arg 25 Val Ala Val Leu Glu Gln Lys Ala Pro Gln Pro Val Ala Gln Asp Ala 40 Pro Pro Glu Leu Arg Val Ser Ala Ile Asn Ala Ala Ser Glu Lys Leu 55 Leu Thr His Leu Gly Val Trp Ser Glu Ile Val Ala Leu Arg Ala Ser 70 75 Cys Tyr His Gly Met Glu Val Trp Asp Lys Asp Ser Phe Gly Arg Ile 90 85 Ala Phe Asp Asp Glu Ser Met Gly Tyr Ser His Leu Gly His Ile Val 100 105 Glu Asn Ala Val Ile His His Val Leu Trp Gln Lys Ala Gln Gln Cys 120 Ser Asp Val Thr Leu Ile Ala Pro Ala Lys Leu Gln Gln Val Ala Trp 135 Gly Glu Asn Asp Ala Phe Ile Thr Leu Glu Ser Gly Asp Met Leu Thr 150 155 Ala Arg Leu Val Val Gly Ala Asp Gly Ala Asn Ser Trp Leu Arg Asn 165 170 Lys Ala Asp Ile Pro Leu Thr Phe Trp Asp Tyr Arg His His Ala Leu 185 190 Val Ala Thr Ile Arg Thr Glu Glu Pro His Gly Gly Val Ala Arg Gln 200 205 Ile Phe His Asn Asp Gly Ile Leu Ala Phe Leu Pro Leu Ala Asp Pro 215 220

2559 His Leu Cys Ser Ile Val Trp Ser Leu Glu Pro Glu Lys Ala Gln Gln 230 235 Met Gln Glu Thr Thr Pro Asp Ala Phe Ser Gln Ala Leu Cys Val Ala 245 250 Phe Asp Asn Arg Leu Gly Leu Cys Gly Leu Glu Ser Glu Arg Gln Thr 265 Phe Pro Leu Thr Gly Arg Tyr Ala Arg Gln Phe Ala Ala His Arg Leu 280 Ala Leu Val Gly Asp Ala Ala His Thr Ile His Pro Leu Ala Gly Gln 295 300 Gly Val Asn Leu Gly Phe Met Asp Ala Ala Glu Leu Val Glu Glu Leu 310 315 Arg Arg Leu His Arg Glu Gly Lys Asp Ile Gly Gln His Leu Tyr Leu 330 325 335 Arg Arg Tyr Glu Arg Ser Arg Lys His Ser Ala Ala Met Met Leu Ala 340 345 Gly Met Gln Gly Phe Arg Glu Leu Phe Ala Gly Ala Asn Pro Ala Lys 360 355 Lys Leu Leu Arg Asp Ile Gly Leu Lys Leu Ala Asp Thr Leu Pro Gly 375 380 Val Lys Pro Gln Leu Leu Arg Gln Ala Met Gly Leu Asn Asp Leu Pro 390 395 Asp Trp Leu Arg 405 <210> 6342 <211> 142 <212> PRT <213> Enterobacter cloacae <400> 6342 Ala Gly Arg Leu Thr Ile Phe Ile Arg Arg Thr Ser Met Ser Asn Val 10 Pro Ala Glu Leu Lys Tyr Ser Lys Glu His Glu Trp Leu Arg Lys Glu Ala Asp Gly Thr Tyr Thr Val Gly Ile Thr Glu His Ala Gln Glu Leu Leu Gly Asp Met Val Phe Val Asp Leu Pro Glu Val Gly Ala Thr Val Ser Ala Gly Asp Asp Cys Ala Val Ala Glu Ser Val Lys Ala Ala Ser 70 75 Asp Ile Tyr Ala Pro Val Ser Gly Glu Ile Val Ala Val Asn Asp Ala 85 Leu Ser Asp Ser Pro Glu Leu Val Asn Ser Glu Pro Tyr Glu Gly Gly 105 100 110 Trp Ile Phe Lys Ile Lys Ala Ser Asp Glu Ala Gln Val Ala Ala Leu 120 Leu Asp Ala Thr Ala Tyr Glu Ala Leu Leu Glu Asp Glu 135

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<210> 6343
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## <400> 6343

Arg Pro Thr Leu Phe Ser Ala Ala Gly Glu His Trp Tyr Phe Thr Gly Phe Asn Glu Pro Glu Ala Val Leu Val Leu Ile Lys Ser Asn Asp Thr His Asn His Ser Val Ile Phe Asn Arg Val Arg Asp Leu Thr Ala Glu

<sup>&</sup>lt;211> 402

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

40 Ile Trp Phe Gly Arg Arg Leu Gly Gln Glu Ala Ala Pro Glu Lys Leu 55 60 Gly Val Asp Arg Ala Leu Ala Tyr Ser Glu Ile Asn Gln Gln Leu Tyr 70 75 Gln Leu Leu Asn Gly Leu Asp Val Leu Tyr His Ala Gln Gly Glu Tyr 85 90 Ala Tyr Ala Asp Asp Ile Val Phe Thr Ala Leu Asp Lys Leu Arg Lys 105 Gly Ser Arg Gln Asn Leu Ser Ala Pro Ala Thr Leu Thr Asp Trp Arg 120 Pro Met Val His Glu Met Arg Leu Phe Lys Ser Glu Glu Glu Leu Asn 135 140 Val Met Arg Arg Ala Gly Glu Ile Ser Ala Leu Ala His Thr Arg Ala 150 155 Met Glu Lys Cys Arg Pro Gly Met Phe Glu Tyr Gln Leu Glu Gly Glu 170 165 Ile His His Glu Phe Asn Arg His Gly Ala Arg Phe Pro Ser Tyr Asn 185 180 Thr Ile Val Gly Gly Glu Asn Gly Cys Ile Leu His Tyr Thr Glu 200 Asn Glu Ser Glu Leu Arg Asp Gly Asp Leu Val Leu Ile Asp Ala Gly 215 220 Cys Glu Tyr Gln Gly Tyr Ala Gly Asp Ile Thr Arg Thr Phe Pro Val 230 235 Asn Gly Lys Phe Thr Thr Ala Gln Arg Glu Ile Tyr Asp Ile Val Leu 245 250 Glu Ser Leu Glu Thr Ala Leu Thr Leu Phe Arg Pro Gly Thr Ser Ile 265 Gln Glu Val Thr Gly Glu Val Val Arg Ile Met Ile Thr Gly Leu Val 280 Lys Leu Gly Ile Leu Lys Gly Asp Val Asp Thr Leu Ile Thr Glu Asn 295 300 Ala His Arg Pro Tyr Phe Met His Gly Leu Ser His Trp Leu Gly Leu 315 Asp Val His Asp Val Gly Ala Tyr Gly Pro Glu Arg Ser Arg Val Leu 330 Glu Pro Gly Met Val Leu Thr Val Glu Pro Gly Leu Tyr Ile Ala Pro 345 Asp Ala Asp Val Pro Glu Arg Tyr Arg Gly Ile Gly Ile Arg Ile Glu 355 360 Asp Asp Ile Val Ile Thr Glu Thr Gly Asn Glu Asn Leu Thr Ala Thr 375 380 Val Val Lys Lys Ala Asp Asp Ile Glu Ala Leu Met Ala Ala Arg 385 390 395 Val

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<210> 6344
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## <400> 6344

Lys Arg Thr Phe Ala Ser Ala Pro Asp Arg Glu Ala Asp Thr Gly Phe 1 5 10 15 His Gly Glu Phe Phe Asn Glu Glu Lys Met Ala Gln Gln Thr Pro Leu 20 25 30 Tyr Glu Gln His Val Leu Cys Gly Ala Arg Met Val Asp Phe His Gly 35 40 45 Trp Met Met Pro Leu His Tyr Gly Ser Gln Ile Asp Glu His His Ala

<sup>&</sup>lt;211> 390

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

55 60 Val Arg Thr Asp Ala Gly Met Phe Asp Val Ser His Met Thr Ile Val 70 75 Asp Leu Arg Gly Ser Arg Thr Arg Glu Phe Leu Arg Tyr Leu Leu Ala 90 Asn Asp Val Ala Lys Leu Lys Thr Pro Gly Lys Ala Leu Tyr Thr Gly 105 Met Leu Asn Ala Ser Gly Gly Val Ile Asp Asp Leu Ile Val Tyr Tyr 120 Phe Thr Glu Asp Phe Phe Arg Leu Val Val Asn Ser Ala Thr Arg Glu 135 140 Lys Asp Leu Ser Trp Ile Ser Gln His Ala Glu Pro Tyr Ala Ile Asp 155 150 Ile Thr Val Arq Asp Asp Leu Ser Leu Ile Ala Val Gln Gly Pro Asn 170 165 Ala Gln Ala Lys Ala Ala Ser Leu Phe Ser Asp Glu Gln Arg Lys Ala 185 Thr Glu Gly Met Lys Pro Phe Phe Gly Val Gln Ala Gly Asp Leu Phe 200 205 195 Ile Ala Thr Thr Gly Tyr Thr Gly Glu Ala Gly Tyr Glu Ile Ala Met 215 220 Pro Asn Glu Lys Ala Ala Asp Phe Trp Arg Ala Leu Val Glu Ala Gly 235 230 Val Lys Pro Ala Gly Leu Gly Ala Arg Asp Thr Leu Arg Leu Glu Ala 250 245 Gly Met Asn Leu Tyr Gly Gln Glu Met Asp Glu Gly Val Ser Pro Leu 265 Ala Ala Asn Met Gly Trp Thr Ile Ala Trp Glu Pro Ala Asp Arg Asp 280 Phe Ile Gly Arg Glu Ala Leu Glu Met Gln Arg Glu Lys Gly Thr Glu 295 Gln Leu Val Gly Leu Val Met Lys Glu Lys Gly Val Leu Arg Gly Glu 310 315 Leu Pro Val Arg Phe Thr Asp Ala Asp Gly Asn His Arg Glu Gly Val 325 330 Ile Thr Ser Gly Thr Phe Ser Pro Thr Leu Gly Tyr Ser Ile Ala Leu 345 340 Ala Arg Val Pro Ala Gly Ile Gly Glu Thr Ala Val Val Gln Ile Arg 360 Asn Arg Glu Met Pro Val Asn Val Thr Lys Pro Ile Phe Val Arg Ala 375 Gly Lys Pro Val Ala 390 <210> 6345 <211> 345 <212> PRT <213> Enterobacter cloacae <400> 6345 Arg Val Val Asn Met Ile Thr Ile Arg Asp Val Ala Arg Gln Ala Gly Val Ser Val Ala Thr Val Ser Arg Val Leu Asn Asn Ser Ala Leu Val 25 Ser Pro Glu Thr Arg Glu Thr Val Met Lys Ala Val Thr Gln Leu Gly 40 Tyr Arg Pro Asn Ala Asn Ala Gln Ala Leu Ala Thr Gln Val Ser Asp 55 Thr Ile Gly Val Val Val Met Asp Val Ser Asp Ala Phe Phe Gly Ala

75

Leu Val Lys Ala Val Asp Val Val Ala Gln Gln His Gln Lys Tyr Val

90 Leu Ile Gly Asn Ser Tyr His Glu Ala Glu Lys Glu Arg Tyr Ala Ile 105 Glu Val Leu Ile Arg Gln Arg Cys Asn Ala Leu Ile Val His Ser Lys 120 125 Ala Leu Ser Asp Glu Glu Leu Ala Gly Phe Met Glu Gln Ile Pro Gly 135 140 Met Val Leu Ile Asn Arg Ile Val Pro Gly Tyr Ala His Arg Cys Val 150 155 Gly Leu Asp Asn Ile Ser Gly Ala Met Met Ala Thr Arg Met Leu Ile 170 165 Ser Asn Gly His Gln Arg Ile Gly Tyr Leu Ala Ser Ser His Gly Ile 185 Glu Asp Asp Met Met Arg Arg Glu Gly Trp Gln Asn Ala Leu Lys Glu 200 Gln Gly Ile Ala Pro Leu Glu Ser Trp Val Gly Thr Gly Ser Pro Asp 215 Met Gln Gly Gly Glu Ala Ala Met Val Glu Leu Leu Gly Arg Asn Leu 230 235 Gln Leu Thr Ala Val Phe Ala Tyr Asn Asp Ser Met Ala Ala Gly Ala 245 250 Leu Thr Ala Leu Lys Asp Asn Gly Ile Ala Val Pro Gln His Leu Ser 265 Leu Ile Gly Phe Asp Asp Ile Pro Ile Ala Arg Tyr Thr Asp Pro Gln 280 Leu Thr Thr Val Arg Tyr Pro Ile Ala Ser Met Ala Lys Leu Ala Thr 295 Glu Leu Ala Leu Gln Gly Ala Ala Gly Leu Leu Asp Pro Asp Ala Thr 310 315 His Cys Phe Met Pro Thr Leu Val Arg Arg His Ser Val Ala Ile Arg 325 330 Gln Thr Val Ala Pro Ile Thr Asn

<210> 6346

<211> 393

<212> PRT

<213> Enterobacter cloacae

<400> 6346

Ile Tyr Phe Ser Leu Thr Ile Gly Ala Ile Met Ala Leu Arg Ile Ala 10 Leu Ser Gly Phe Val Val Leu Val Val Ala Met Gly Ile Gly Arg Phe 25 Ala Phe Thr Pro Gln Val Pro Leu Met Ile Ala Ala Gly Gln Leu Thr 40 Leu Thr Ser Ala Gly Leu Val Ala Ala Met Asn Tyr Leu Gly Tyr Leu 55 60 Val Gly Ala Trp Asp Ala Met Arg Ala His Arg Phe Val Glu Thr Arg 70 75 Leu Trp Leu Gly Ile Thr Gly Ala Val Ala Leu Thr Leu Leu Ser Ala 90 Ala Ala Glu Asn Ala Val Val His Gly Leu Leu Arg Phe Val Ile Gly 105 Cys Met Ser Gly Trp Ser Met Val Leu Ile Ala Ala Trp Thr Asn Glu 120 125 Arg Leu Gly Gln Leu Gly Lys Pro Gly Leu Ser Ala Ala Val Phe Ala 135 140 Gly Pro Gly Ala Gly Ile Ala Leu Ser Gly Leu Leu Ala Val Tyr Ile 150 155 Gln Ala Lys Ser Leu Ser Ala Gly Ala Ala Trp Gln Ile Tyr Gly Val

165 170 Leu Ala Leu Val Leu Ile Val Leu Val Ala Arg Tyr Leu Pro Arg Ala 180 185 Gly Gln Leu His Arg Pro Asp Thr Ala Pro Glu Pro Leu Leu Thr 200 205 Ala Asp Leu Arg Arg Leu Val Trp Ser Tyr Ser Leu Ala Gly Phe Gly 215 Tyr Ile Leu Pro Ala Thr Phe Leu Ser Gln Met Ala Ala Val Arg Phe 230 235 Pro Gly Ser Leu Phe Ala Gln Phe Val Trp Pro Ile Phe Gly Ala Ala 250 245 Ser Val Val Gly Ile Ala Leu Ser Ile Ala Leu Arg His Thr Ser Ser 260 265 Ala Asn Arg Arg Leu Ala Ile Val Leu Trp Leu Gln Gly Ile Gly Val 280 275 285 Leu Ala Ala Trp Leu Leu Pro Gly Ile Gly Gly Leu Leu Thr Gly Gly 295 300 Leu Leu Val Gly Gly Phe Leu Cys Ala Val Gln Leu Ser Leu Leu 310 315 Tyr Gly Arg Glu Leu Ala Pro Asp His Thr Arg Tyr Met Ala Gly Leu 330 Leu Thr Thr Gly Tyr Ala Ile Gly Gln Leu Val Gly Pro Val Thr Ser 340 345 Ala Leu Ser Thr Trp Leu Thr His Arg Leu Glu Pro Ala Leu Gly Leu 360 Ala Gly Ile Ala Leu Phe Val Gly Gly Ala Leu Val Trp Asn Arg Gln 375 Ala Glu Arg Gln Gln Gln Leu Gln

<210> 6347 <211> 253

<212> PRT

<213> Enterobacter cloacae

<400> 6347

Ile Leu Asp Tyr Val Arg Arg Leu Thr His Asn Glu Arg Thr Leu Leu Pro Gln Arg Gly Gln Lys Thr Pro His Leu Gln Glu Lys Arg Met Ser 25 Ser Leu Ser Lys Glu Ala Ala Leu Val His Glu Ala Leu Val Ala Arg 40 Gly Leu Glu Thr Pro Leu Arg Pro Pro Val Gln Glu Leu Asp Asn Val 55 Thr Arg Lys Arg Leu Ile Ala Gly His Met Thr Glu Ile Met Gln Leu 70 7.5 Leu Asn Leu Asp Leu Ser Asp Asp Ser Leu Met Glu Thr Pro His Arg 90 8.5 Ile Ala Lys Met Tyr Val Asp Glu Ile Phe Ser Gly Leu Asp Tyr Ala 105 100 110 Asn Phe Pro Lys Ile Thr Val Ile Glu Asn Lys Met Lys Val Asp Glu 120 125 Met Val Thr Val Arg Asp Ile Thr Leu Thr Ser Thr Cys Glu His His 135 140 Phe Val Thr Ile Asp Gly Lys Ala Thr Val Ala Tyr Ile Pro Lys Asp 150 Thr Val Ile Gly Leu Ser Lys Ile Asn Arg Ile Val Gln Phe Phe Ala 170 Gln Arg Pro Gln Val Gln Glu Arg Leu Thr Gln Gln Ile Leu Thr Ala 185 Leu Gln Thr Leu Leu Gly Thr Asn Asn Val Ala Val Ser Ile Asp Ala

<210> 6348 <211> 392 <212> PRT <213> Enterobacter cloacae

Leu Leu Lys Arg Gly Thr Arg Trp Ile Gln Ser Arg Leu Thr Leu Leu Val Ile Leu Gly Phe Ile His Gly Leu Leu Phe Trp Asp Gly Asp 105 Ile Leu Leu Ala Tyr Gly Leu Val Gly Leu Ile Cys Trp Arg Leu Ile 120 Arg Asp Ala Pro Gly Val Lys Ser Leu Phe Asn Thr Gly Val Met Leu 135 Tyr Val Met Gly Leu Ala Val Leu Leu Leu Gly Met Ile Ala Asp 150 155 Asp Ser Thr Ser Arg Ser Trp Ile Pro Asp Ala Ala Asn Leu Gln Tyr 170 Glu Gln Phe Trp Lys Leu Lys Gly Gly Met Glu Ala Ile Gly Asn Arg 185 Ala Asp Met Leu Gly Asp Asn Leu Leu Ala Leu Gly Ala Gln Tyr Gly 200 Trp Gln Leu Ala Gly Met Met Leu Met Gly Ala Ala Leu Met Arg Thr 215 220 Gly Trp Leu Lys Gly Glu Phe Ser Leu Arg His Tyr Arg Arg Thr Gly 235 230 Ala Gly Leu Val Leu Gly Val Ile Ile Asn Leu Pro Ala Val Met 250 245 Met Gln Trp His Leu Gln Trp Asp Tyr Arg Trp Cys Ala Phe Leu Leu 265 Gln Val Pro Arg Glu Leu Ser Ala Pro Phe Gln Thr Ile Gly Tyr Ala 285 280 Ala Leu Ile Tyr Gly Phe Trp Pro Gln Leu Ser Arg Leu Trp Ile Val 295 300 Ser Ala Val Ala Cys Val Gly Arg Met Ala Leu Ser Asn Tyr Ile Leu 315 Gln Thr Leu Ile Cys Thr Thr Leu Phe Tyr Arg Phe Gly Leu Phe Met 330 Lys Phe Asp Arg Leu Thr Leu Leu Ala Phe Val Ile Pro Val Trp Ile 345 Val Asn Val Val Phe Ser Val Val Trp Leu Arg Phe Phe Arg Gln Gly 360 Pro Leu Glu Trp Ala Trp Arg Gln Leu Thr Ala Arg Ala Ser Gly Val

2565

Ser Leu Arg Asn Thr Ser Arg

<210> 6349

<211> 322

<212> PRT

<213> Enterobacter cloacae

<400> 6349

Thr Leu Ser Ala Val Met Ala Ser Met Leu Phe Gly Ala Ala Ala His  $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$ 

380

Ala Ala Asp Thr Arg Ile Gly Val Thr Ile Tyr Lys Tyr Asp Asp Asn 20 25 30

Phe Met Ser Val Val Arg Lys Ala Ile Glu Lys Asp Ala Lys Ser Ala 35 40 45

Pro Asp Val Gln Leu Leu Met Asn Asp Ser Gln Asn Asp Gln Ser Lys 50 55 60

Gln Asn Asp Gln Ile Asp Val Leu Leu Ala Lys Gly Val Lys Ala Leu 65 70 75 80

Ala Ile Asn Leu Val Asp Pro Ala Ala Ala Gly Thr Val Ile Glu Lys
85 90 95

Ala Arg Gly Gln Asn Val Pro Ile Val Phe Phe Asn Lys Glu Pro Ser 100 105 110

Arg Lys Ala Leu Asp Ser Tyr Asp Lys Ala Tyr Tyr Val Gly Thr Asp 115 120 125

Ser Lys Glu Ser Gly Ile Ile Gln Gly Asp Leu Ile Ala Lys His Trp 130 135 140

Ala Ala Asn Pro Asn Trp Asp Leu Asn Lys Asp Gly Gln Ile Gln Phe 145 150 155 160

Val Leu Leu Lys Gly Glu Pro Gly His Pro Asp Ala Glu Ala Arg Thr
165 170 175

Thr Tyr Val Ile Lys Glu Leu Asn Asp Lys Gly Leu Lys Thr Gln Gln 180 185 190

Leu Ala Leu Asp Thr Ala Met Trp Asp Thr Ala Gln Ala Lys Asp Lys
195 200 205

Met Asp Ala Trp Leu Ser Gly Pro Asn Ala Asn Lys Ile Glu Val Val 210 215 220

Ile Ala Asn Asn Asp Ala Met Ala Met Gly Ala Val Glu Ala Leu Lys 225 230 235 240

Ala His Asn Lys Ser Ala Ile Pro Val Phe Gly Val Asp Ala Leu Pro 245 250 255

Glu Ala Leu Ala Leu Val Lys Ser Gly Ala Met Ala Gly Thr Val Leu 260 265 270

Asn Asp Ala Asn Asn Gln Ala Lys Ala Thr Phe Asp Leu Ala Lys Asn 275 280 285

Leu Ala Asp Gly Lys Gly Ala Ala Asp Gly Thr Asn Trp Lys Val Asp 290 295 300

Asn Lys Ile Val Arg Val Pro Tyr Val Gly Val Tyr Gln Ser Asn Leu 305 310 315 320

Gly

<210> 6350

<211> 293

<212> PRT

<213> Enterobacter cloacae

<400> 6350

Lys Leu Cys Ile Met Arg Phe Met Asn Ser Leu Ser Tyr Lys Glu Pro 1 10 15 Cys Met Glu Leu Leu Glu Glu His Arg Cys Phe Glu Gly Arg Gln Gln 20 25 Arg Trp Arg His Asp Ser Thr Thr Leu Asn Cys Ala Met Thr Phe Ser 40 Ile Phe Leu Pro Pro Ala Asp Asn Pro Pro Val Leu Tyr Trp Leu Ser 55 Gly Leu Thr Cys Asn Asp Glu Asn Phe Thr Thr Lys Ala Gly Ala Gln 75 70 Arg Ile Ala Ala Glu Leu Gly Ile Ala Leu Val Met Pro Asp Thr Ser Pro Arg Gly Glu Asp Val Ala Asp Asp Ala Gly Tyr Asp Leu Gly Lys 105 Gly Ala Gly Phe Tyr Leu Asn Ala Thr Glu Gln Pro Trp Ala Arg His 120 125 115 Tyr Arg Met Tyr Asp Tyr Ile Arg Asp Glu Leu Pro Ala Leu Val His 135 140 Ser Gln Phe Ala Val Ser Glu Arg Cys Ala Ile Ser Gly His Ser Met 150 155 Gly Gly His Gly Ala Leu Ile Met Ala Leu Lys Asn Pro Gly Lys Tyr 165 170 175 Thr Ser Val Ser Ala Phe Ala Pro Ile Val Asn Pro Thr Gln Val Pro 180 185 Trp Gly Gln Lys Ala Phe Arg His Tyr Leu Gly Glu Asp Leu Glu Lys 200 205 Trp Gln Glu Trp Asp Ser Cys Ala Leu Met Leu Ala Ser Gln Ser Glu 215 Asp Ala Ile Pro Met Leu Val Asp Gln Gly Asp Ala Asp Gln Phe Leu 230 235 Ala Gly Gln Leu Gln Pro Ala Val Leu Ala Glu Ala Ala Arg Gln Lys 250 245 Asp Trp Pro Leu Thr Leu Arg Ile Gln Pro Gly Tyr Asp His Ser Tyr Tyr Phe Met Ala Ser Phe Ile Glu Asp His Leu Arg Phe His Ala Glu 275 280 His Leu Phe Arg 290 <210> 6351

<211> 221

<212> PRT

<213> Enterobacter cloacae

<400> 6351

Leu Val Val Thr His Gly Ala Gln Glu Leu Leu Ala Gly Val Leu 10 Ala Arg Phe Glu Gln Ala Ala Gln Arg Ser Gly Gly Cys Ala Gly 25 Ser Ile Thr His Ala Ala Arg Phe His Ala Val Val His Arg Val Asp 40 Arg His Arg His Ile Val Ser Pro Gln Gln Gly Leu Gln Cys Gly Gln 55 Asp Leu Leu Arg Gln Thr Phe Leu His Leu Arg Thr Leu Gly Lys Glu 75 Leu His Asp Ala Val Asp Leu Gly Gln Ala Asp Asp Arg Ile Phe Trp Asn Ile Gly His Arg Arg Phe Thr Ile Asp Gly His Lys Val Met Leu 105 Ala Gly Ala Gly Gln Arg Asp Ile Ala Tyr Arg His His Leu Ile Asp 120 125 Leu His Leu Ile Phe Asn Asp Gly Asp Phe Arg Glu Val Arg Val Ile 135

<210> 6352

<211> 222

<212> PRT

<213> Enterobacter cloacae

<400> 6352

Ile Gln Pro Val Phe Arg Arg His His Ser Asn Thr Asn Asp Phe Asn 10 Tyr His Leu Cys Leu Gln Phe Tyr Ile Leu Leu Tyr Asn Ser Arg Leu Phe Ser Ile Ser Lys Ser Ser Tyr Lys Thr Lys Thr Tyr Ser Ser Gln 40 Gly Tyr Pro Asp Gly Val Phe Phe Ile Phe Ile Arg Asn Val Gln Met Thr Ile Pro Arg Ile Lys Leu Leu Ala Val Ala Ile Gly Ala Ala Thr 70 75 Cys Ser Pro Phe Val His Ala Ala Asp Gln A'sp Thr Val Val Val Thr Ala Thr Gly Phe Glu Gln Lys Ile Gln Asn Ala Pro Ala Ser Ile Ser 100 105 Val Ile Ser Lys Gln Gln Ile Glu Asp Lys Ala Tyr Arg Asp Val Thr 120 125 Asp Ala Leu Arg Asp Val Pro Gly Val Val Thr Gly Gly Gly Ser 135 140 Ser Ser Asp Ile Ser Ile Arg Gly Met Ala Ser Gln Tyr Thr Leu Phe 150 155 Leu Val Asn Gly Lys Arg Val Ser Thr Arg Ser Thr Arg Pro Asn Ser 170 165 Asp Asn Ser Gly Ile Glu Gln Gly Trp Leu Pro Pro Leu Glu Ser Ile 180 185 190 Glu Arg Ile Glu Val Ile Arg Gly Pro Met Ser Ser Leu Tyr Gly Ser 200

Asp Ala Met Gly Gly Val Met Asp Val Ile Thr Gln Asn Ser 210 215 220

<210> 6353

<211> 204

<212> PRT

<213> Enterobacter cloacae

<220>

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<222>(6)

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<222>(40)
<400> 6353
Arg Gly Gly Glu Gly Xaa Xaa Xaa Xaa Leu Phe Pro Xaa Pro Gly
                                     10
Ala Trp Ala Ser Xaa Xaa Xaa His Pro Xaa Xaa Pro Asn Ser Phe Pro
                                 25
Xaa Gly Leu Ser Pro Lys Pro Xaa Ala Arg Pro Leu Thr Ser Gly Cys
Asn Pro Arg Thr Asn Ile Ser Val Glu Leu Met Pro Gln Ser Arg Ile
Lys Leu Asp Ala Asn Leu Lys Asp Phe Glu Ala Gln Leu Ala Ala Thr
                    70
                                         75
Asp Lys Gln Val Gly Asn Glu Leu Ala Pro Leu Lys Gly Lys Gly Tyr
                                     90
                85
Phe Val Phe His Asp Ala Tyr Gly Tyr Tyr Glu Lys His Tyr Gly Leu
                                 105
                                                      110
Thr Pro Leu Gly His Phe Thr Val Asn Pro Glu Ile Gln Pro Gly Ala
                             120
                                                 125
Gln Arg Leu His Glu Ile Arg Thr Gln Leu Val Glu Gln Lys Ala Thr
                        135
                                             140
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 Cys
 Val
 Phe
 Ala
 Glu
 Pro
 Gln
 Phe
 Arg
 Pro
 Ala
 Val
 Val
 Glu
 Ala
 Val

 145
 150
 150
 155
 155
 160

 Ala
 Arg
 Gly
 Thr
 Leu
 Asp
 Pro
 Leu
 Gly
 Thr

 165
 165
 170
 170
 175
 175

 Asn
 Ile
 Gln
 Leu
 Ser
 Lys
 Ala
 Ser
 Gln
 Phe
 Leu
 Ser
 Gln
 Leu

 Ala
 Asn
 Gln
 Tyr
 Ala
 Ser
 Cys
 Leu
 Lys
 Gly
 Asp

 195
 200
 200
 190
 190
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 190
 190

<210> 6354 <211> 445 <212> PRT

<213> Enterobacter cloacae

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Ala Ile Arg His Gly Arg Thr Tyr Thr Arg Tyr Met His Leu Arg 355 360 365 Lys Leu Leu Val Lys Pro Gly Gln Lys Val Lys Arg Gly Asp Arg Ile 375 380 Ala Leu Ser Gly Asn Thr Gly Arg Ser Thr Gly Pro His Leu His Tyr 390 395 Glu Val Trp Ile Asn Gln Gln Ala Val Asn Pro Leu Thr Ala Lys Leu 405 410 Pro Arg Thr Glu Gly Leu Thr Gly Lys Asp Arg Lys Asp Tyr Leu Ala 425 430 420 Gln Val Lys Glu Val Met Pro Gln Leu Arg Phe Asp 440 445 <210> 6355 <211> 72 <212> PRT <213> Enterobacter cloacae

<400> 6355 Lys Ala Gly Val Ser Met Arg Arg Leu Phe Leu Leu Cys Ala Gly Gly Ser Leu Ala Thr Leu Ser Ala Tyr Ile Phe Ala Ser Pro Asp Pro Gly Thr Arg Met Glu Thr Lys Lys Asn Asn Ile Glu Tyr Ile His Glu Phe Glu Lys Ser Phe Arg His Pro Arg Asn Trp Gly Ala Trp Ile Gly Val Tyr Ala Phe Ala Gly Met Ala

Leu Pro Ala Thr Leu Arg Asp Pro Val Leu Gly Lys Val Gly Arg Leu

<210> 6356 <211> 286 <212> PRT <213> Enterobacter cloacae

<400> 6356

1.0 Ala Gly Arg Leu Gly Lys Ser Ala Arg Arg Arg Ala Gln Ile Asn Leu 20 25 Leu Tyr Cys Phe Pro Asp Lys Ser Asp Ala Glu Arg Glu Ala Ile Ile 35 40 45 Asp Asp Met Tyr Thr Thr Ala Pro Gln Ala Met Ala Met Ala Glu 55 60 Leu Ala Leu Lys Gly Pro Glu Lys Ile Val Glu Arg Val Asp Trp Lys 70 75 Gly Leu Glu Ile Ile Asp Glu Met Arg Arg Asn Asp Glu Lys Val Ile 85 90 Phe Leu Val Pro His Gly Trp Gly Val Asp Ile Pro Ala Met Leu Met 105 Ala Ser Gln Gly Gln Lys Met Ala Ala Met Phe His Asn Gln Gly Asn 120 Lys Ile Tyr Asp Phe Val Trp Asn Thr Val Arg Arg Arg Phe Gly Gly 135 140 Arg Leu His Ala Arg Asn Asp Gly Ile Lys Pro Phe Ile Gln Ser Val 150 155 Arg Gln Gly Tyr Trp Gly Tyr Tyr Leu Pro Asp Gln Asp His Gly Pro 165 170 Glu His Ser Glu Phe Val Asp Phe Phe Ala Thr Tyr Lys Ala Thr Leu 180 185 190 Pro Ala Ile Gly Arg Leu Met Lys Val Cys Arg Ala Arg Val Ile Pro 200 205 Leu Phe Pro Ala Tyr Asp Gly Lys Thr His Arg Leu Ser Ile Glu Val

215 Arg Pro Pro Met Asp Asp Leu Leu Thr Ala Asp Asp His Thr Ile Ala 230 235 Arg Arg Met Asn Glu Glu Val Glu Val Leu Val Gly Pro His Lys Glu 245 250 Gln Tyr Thr Trp Ile Leu Lys Leu Lys Thr Arg Lys Pro Gly Glu 265 260 Thr Glu Pro Tyr Lys Arg Lys Glu Leu Phe Pro Lys Lys 280 <210> 6357 <211> 257 <212> PRT <213> Enterobacter cloacae <400> 6357 Trp Phe Gln Glu Thr Arg Lys Ser Ser Thr Val His Cys Asn Lys Ile Thr Thr Ile Pro Gly Arg Val Pro Gly Asp Leu Thr Glu Glu Asn Asp 25 Met Ala Val Thr Gln Thr Ala Gln Ala Cys Asp Leu Val Ile Phe Gly Ala Lys Gly Asp Leu Ala Arg Arg Lys Leu Pro Ser Leu Tyr Gln 55 60 . Leu Glu Lys Ala Gly Gln Ile His Pro Asp Thr Arg Ile Leu Gly Val 75 Gly Arg Ala Asp Trp Asp Lys Glu Ala Tyr Thr Lys Val Val Arg Glu 85 90 Ala Leu Glu Thr Phe Met Lys Glu Lys Ile Asp Glu Ser Leu Trp Asp 100 105 110 Lys Leu Ser Gly Arg Leu Asp Phe Cys Asn Leu Asp Val Asn Asp Val 120 · 115 125 Gly Ala Phe Thr Arg Leu Gly Glu Met Leu Asp Gln Glu Asn Arg Val 135 130 140 Thr Ile Asn Tyr Phe Ala Met Pro Pro Ser Thr Phe Gly Ala Ile Cys 150 155 Lys Gly Leu Gly Glu Ala Lys Leu Asn Ala Lys Pro Ala Arg Val Val 165 170 175 Met Glu Lys Pro Leu Gly Thr Ser Leu Ala Thr Ser Arg Glu Ile Asn 185 190 180 Asp Gln Val Gly Glu Phe Phe Glu Glu Cys Gln Val Tyr Arg Ile Asp 200 205 His Tyr Leu Gly Lys Glu Thr Val Thr Glu Leu Ala Gly Val Ala Phe 215 220 Cys Gln Leu Pro Val Cys Glu Gln Met Gly Gln Pro His Tyr Arg Pro 230 235 Arg Gly Asn Tyr Arg Gly Gly Arg Gly His Arg Ser Pro Leu Gly

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<210> 6358
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<400> 6358

Ala Ser Ser Leu Arg Ser Val Arg Phe Thr Val Leu Thr Thr Ile Trp 1 5 10 15

Ala Lys Arg Arg Leu Leu Asn Leu Leu Ala Trp Arg Phe Ala Asn Ser 20 25 30

250

<sup>&</sup>lt;211> 253

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Leu Phe Val Asn Lys Trp Asp Asn Arg Thr Ile Asp His Val Glu Ile Thr Val Ala Glu Glu Val Gly Ile Glu Ala Arg Trp Gly Asn Phe Asp 55 Gln Ala Gly Gln Met Arg Asp Met Ile Gln Asn His Leu Leu Gln Ile 70 75 Leu Cys Met Ile Ala Met Ser Pro Pro Ser Asp Leu Thr Ala Asp Ser 90 8.5 Ile Arg Asp Ala Lys Val Lys Val Leu Lys Ser Leu Arg Arg Ile Asp 105 100 110 Arg Ser Asn Val Arg Glu Lys Thr Val Arg Gly Gln Tyr Thr Ala Gly 120 125 Phe Ala Gln Gly Lys Lys Val Pro Gly Tyr Leu Glu Glu Glu Gly Ala 135 140 Asn Lys Ser Ser Asn Thr Glu Thr Phe Val Ala Ile Arg Val Asp Ile 150 155 Asp Asp Trp Arg Trp Ala Gly Val Pro Phe Tyr Leu Arg Thr Gly Lys 165 170 175 Arg Leu Pro Ala Lys Cys Ser Glu Val Val Val Tyr Phe Lys Asn Pro 185 Glu Leu Asn Leu Phe Lys Glu Ser Trp Gln Glu Leu Pro Gln Asn Lys 200 Leu Thr Ile Arg Leu Gln Pro Asp Glu Gly Val Asp Ile Gln Ile Leu 215 220 Asn Lys Val Pro Gly Leu Asp His Lys His Asn Leu Gln Thr Thr Lys 230 235 Leu Asp Leu Ser Tyr Ser Asp Thr Val His His Tyr 245

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<210> 6359
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## <400> 6359

Tyr Arg Leu Asn Arg Ile Lys Val Ser Ser Leu Tyr Glu Ile Val Tyr 10 Ala Leu Met Ser Val Leu Leu Thr Met Asn Met Leu Glu Lys Ile Gln 25 Phe Gln Leu Glu His Leu Ser Lys Ser Glu Arg Lys Val Ala Glu Val 40 Ile Leu Ala Ala Pro Ala Gln Ala Ile His Ser Ser Ile Ala Ala Leu 5.5 Ala Gln Glu Ser Gly Val Ser Glu Pro Thr Val Asn Arg Phe Cys Arg 70 75 Ser Leu Asp Thr Arg Gly Phe Pro Asp Phe Lys Leu His Leu Ala Gln 90 8.5 Ser Leu Ala Asn Gly Thr Pro Tyr Val Asn Arg Asn Val Asp Glu Asp 100 105 110 Asp Ser Val Asp Ala Tyr Thr Ala Lys Ile Phe Glu Ser Ala Met Ala 120 Thr Leu Asp His Val Arg Gln Ser Leu Asp Met Ser Ser Val Asn Arg 135 Ala Val Asp Leu Leu Thr Gln Ala Lys Arg Ile Ala Phe Phe Gly Leu 150 155 Gly Ser Ser Ala Ala Val Ala His Asp Ala Met Asn Lys Phe Phe Arg 170 165 Phe Asn Val Pro Val Ile Tyr Ser Asp Asp Ile Val Leu Gln Arg Met 185 Ser Cys Met Asn Cys Ser Glu Asp Asp Val Val Leu Ile Ser His 200

<sup>&</sup>lt;211> 314

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Thr Gly Arg Thr Lys Ser Gln Val Glu Leu Ala Gln Leu Ala Arg Asp 215 220 Asn Asp Ala Met Val Ile Ala Leu Thr Thr Ala Gly Thr Pro Leu Ala 230 235 Arg Glu Ala Thr Leu Ala Ile Thr Leu Asp Val Pro Glu Asp Thr Asp 245 250 Met Tyr Met Pro Met Val Ser Arg Leu Ala Gln Leu Thr Val Ile Asp 260 265 Val Leu Ala Thr Gly Phe Thr Leu Arg Arg Gly Ala Lys Phe Arg Asp 280 285 Asn Leu Lys Arg Val Lys Glu Ala Leu Lys Glu Ser Arg Phe Asp Lys 295 300 Glu Leu Leu Ile Lys Ser Asp Val Pro 310 <210> 6360 <211> 518 <212> PRT

<213> Enterobacter cloacae

<400> 6360 Arg Arg Ser Thr Ile Tyr Gly Ile Arg Ser Pro Arg Tyr Cys Leu Ala 10 Ile Asp Glu Gly Arg Phe Tyr Val His Ala Thr Pro Lys Leu Phe Gln 25 Ser Thr Glu Tyr Tyr Met Ser Arg Arg Leu Arg Arg Thr Lys Ile Val 40 Thr Thr Leu Gly Pro Ala Thr Asp Arg Asp Asn Asn Leu Glu Lys Ile Ile Ala Ala Gly Ala Asn Val Val Arg Met Asn Phe Ser His Gly Thr 75 Pro Glu Asp His Lys Leu Arg Ala Asp Lys Val Arg Glu Ile Ala Alà 85 90 Lys Leu Gly Arg His Val Ala Ile Leu Gly Asp Leu Gln Gly Pro Lys 100 105 110 Ile Arg Val Ser Thr Phe Lys Glu Gly Lys Val Phe Leu Asn Ile Gly 115 120 125 Asp Lys Phe Leu Leu Asp Ala Asn Leu Ser Lys Gly Glu Gly Asp Lys 130 135 140 Glu Lys Val Gly Ile Asp Tyr Lys Gly Leu Pro Ala Asp Val Val Pro 150 155 Gly Asp Ile Leu Leu Asp Asp Gly Arg Val Gln Leu Lys Val Leu 165 170 Glu Val Gln Gly Met Lys Val Phe Thr Glu Val Thr Val Gly Gly Pro 180 185 Leu Ser Asn Asn Lys Gly Ile Asn Lys Leu Gly Gly Leu Ser Ala 200 205 Glu Ala Leu Thr Asp Lys Asp Lys Ala Asp Ile Val Thr Ala Ala Gln 215 220 Ile Gly Val Asp Tyr Leu Ala Val Ser Phe Pro Arg Cys Gly Glu Asp 230 235 Leu Asn Tyr Ala Arg Arg Leu Ala Arg Asp Ala Gly Cys Asp Ala Lys 250 Ile Val Ala Lys Val Glu Arg Ala Glu Ala Val Cys Asp Gln Asp Ala 265 Met Asp Asp Val Ile Leu Ala Ser Asp Val Val Met Val Ala Arq Gly 280 Asp Leu Gly Val Glu Ile Gly Asp Pro Glu Leu Val Gly Ile Gln Lys 295 300 Ala Leu Ile Arg Arg Ala Arg Gln Leu Asn Arg Ala Val Ile Thr Ala 310 315

Thr Gln Met Met Glu Ser Met Ile Thr Asn Pro Met Pro Thr Arg Ala 325 330 Glu Val Met Asp Val Ala Asn Ala Val Leu Asp Gly Thr Asp Ala Val 345 Met Leu Ser Ala Glu Thr Ala Ala Gly Gln Tyr Pro Ala Glu Thr Val 360 365 Ala Ala Met Ala Arg Val Cys Leu Gly Ala Glu Lys Ile Pro Ser Ile 375 380 Asn Val Ser Lys His Arg Leu Asp Ile Gln Phe Asp Asn Val Glu Glu 390 395 Ala Ile Ala Met Ser Ala Met Tyr Ala Ala Asn His Leu Lys Gly Val 405 410 Thr Ala Ile Ile Thr Met Thr Glu Ser Gly Arg Thr Ala Leu Met Thr 425 420 Ser Arg Ile Ser Ser Gly Leu Pro Ile Phe Ala Met Ser Arg His Glu 435 440 Arg Thr Leu Asn Leu Thr Ala Leu Tyr Arg Gly Val Thr Pro Val Tyr 455 460 Phe Asp Ser Thr Asn Asp Gly Val Ala Ala Ala His Asp Ala Val Asn 470 475 Leu Leu Arg Asp Lys Gly Tyr Leu Val Ser Gly Asp Ile Val Ile Val 485 490 Thr Gln Gly Asp Val Met Ser Thr Ile Gly Ser Thr Asn Thr Thr Arg 500 505 Val Leu Thr Val Glu 515 <210> 6361 <211> 80 <212> PRT <213> Enterobacter cloacae <400> 6361 Lys Glu Leu Ala Leu Lys Lys Ile Phe Val Ser Val Phe Ala Ala Ala 10 Val Ala Leu Ser Ala Leu Thr Gly Cys Thr Arg Thr Ser Tyr Ala Ile 25 His Thr Asn Asp Gly Arg Thr Ile Val Ser Asp Gly Lys Pro Thr Glu Ser Asp Ser Gly Leu Leu Gly Tyr Lys Asp Ala Asn Gly Val Lys Gln 55 Gln Ile Asn Lys Ala Asp Val Lys Glu Val Ser Glu Ile Pro His 70 <210> 6362 <211> 166 <212> PRT <213> Enterobacter cloacae

<400> 6362

Arg Glu Pro Ser Met Asn Ser Leu Leu Thr Leu Ala Lys Asp Leu Glu 10 Gln Lys Ser Lys Val Gln Gln Gln Thr Thr Gly Glu Met Leu Lys Ala 25 Ala Phe Ser Glu His Asp Lys Ser Val Arg Thr Glu Leu Asn Glu Ser 40 Glu Lys Arg Ile Ser Ala Ala Ile His Asp His Asp Arg Met Leu Ser Ser Ala Met Ser Gln Arg Thr Lys Gly Met Leu Arg Met Val Ser Gln Thr Trp Leu Thr Ile Val Leu Val Ser Val Leu Leu Ile Ala Ser Ser

2575 90 Ala Gly Ile Leu Trp Trp Gln Gly Gln Gln Ile Leu Asp Asn Tyr Thr 105 Thr Ile Arg Glu Gln Lys Ser Thr Gln Ala Met Leu Ser Glu Arg Asn 120 Ser Gly Val Gln Leu Thr Thr Cys Gly Glu Glu Arg Arg Cys Val 135 140 Arg Val Asn Pro Asp Ala Gly Arg Phe Gly Glu Asp Ser Ser Trp Met 150 Ile Leu Ala Gly Lys 165 <210> 6363 <211> 71 <212> PRT <213> Enterobacter cloacae <400> 6363 His Met Thr Glu Leu Glu Lys Gln Leu Leu Ser Ala Leu Glu Gln Leu Gln Gln Asp Tyr Ser Lys Arg Leu Asp Glu Trp Glu Ser Ala Phe Ala 25 Glu Trp Arg Thr Met Cys Gly Leu Met Gln Arg Glu Asn Ala Ala Leu 40 Ser Glu Arg Val Thr Asp Leu Ser Thr Gln Val Leu Ser Leu Ser Glu Gln Leu Arg Arg Leu Ser <210> 6364 <211> 112 <212> PRT <213> Enterobacter cloacae <400> 6364 Ile Ser Val Ile Trp Gln Arg Leu Leu Lys Met Pro Glu Thr Lys Gln 10 Glu Ala Ala Gln Ala Ile Thr Arg Gly Leu Leu Ala Leu Ala Ser Ser 25 Gly Glu Leu Lys Thr Arg His Asp Val Thr Glu Ala Leu Glu Ser Ala 40 45 Gly Phe Glu Val Val Arg Thr Thr Lys Ser Ser Ile Ser Ile Ala Asp 55 Pro Asp Gly Gly Arg Asn Ile Arg Leu Lys Gly Ala Ile Tyr Glu Gln 75 70 Ser Phe Asn Ala Gly Glu Gly Leu Arg Ala Glu Ile Glu Ser Ala Ala 85 90 Thr Asp Tyr Arg Arg Asp Ala Glu Ser Arg Ile Gln Arg Ala Arg <210> 6365 <211> 236 <212> PRT <213> Enterobacter cloacae <400> 6365 Val Cys Gln Asn Gly Thr Glu Arg Lys Arg Glu Glu Asn Gln Arg Arg 10 His Pro Arg Pro Arg Pro Asp Ala Val Leu Ser His Glu Pro Ala Tyr 25

Glu Arg Asp Ala Ala His Gly Gln Pro Asp Val Ala Asp His Arg Pro

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40
                                                4.5
Gly Leu Arg Ala Ala Asp Ser Leu Lys Cys Gly His Ser Met Val Ala
                        55
                                             60
Gly Ala Ala Asp Thr Arg Gln Leu His Asp His Pro Gly Ala Glu Glu
                    70
                                        75
His Ala Gly His Ala Val Arg Glu Glu Gln Arg Arg Ala Ala His Asp
               85
                                    90
Leu Arg Arg Gly Thr Thr Pro Leu Arg Glu Gly Glu Pro Gly Arg Gly
                                105
Thr Val Arg Arg Gly Phe Glu Leu Asp Asp Thr Gly Gly Glu Ile Ala
                            120
His Asp Gly Thr Gly Lys Thr Val Ala Glu Arg Ile Arg Ala Ala Thr
                        135
Ala Gly Leu Leu Glu Lys Ala Gly Arg Val Gly Glu Arg Leu Arg Gly
                    150
                                        155
Met Ala Asp Asp Val Trp Ser Tyr Ala Thr Gly Glu Arg Ser Ala Glu
                165
                                    170
Arg Ala Arg His Gly Leu Glu His Ala Gly Ala Glu Phe Lys Arg Ala
                                185
            180
Ala Ala Pro Val Val Val Arg Leu Asn Asp Ile Glu Ala His Arg Glu
                            200
Gln Glu Arg Ala Ala Gln His Gln Lys Ala Leu Glu Leu Glu Arg Ser
                        215
                                            220
Gln Arg Gln Gln Glu Tyr Asp Gly Pro Ser Leu
                    230
<210> 6366
<211> 1091
<212> PRT
<213> Enterobacter cloacae
<400> 6366
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Thr Gly Lys Leu Leu Lys Lys Pro Lys Phe Thr Gln Trp Ala Leu Ser
Leu Ala Arg Gly Ser Tyr Ile Gln Lys Arg Gly Ser His Met Glu Phe
Phe Tyr Val Val Lys Ala Thr Gln Lys Ser Gly Lys Glu Asp Ala Val
Ile Trp Phe Thr Ala Lys Ser Glu Ala Arg Ala Asn Leu Gln Leu Asp
                                        75
Val Glu Leu Glu Asp Ala Gly Ile Glu Thr Gly Arg Gly Lys Asn Tyr
                8.5
                                    90
Ser Lys Pro Ala Arg Thr Asp Phe Pro Val Tyr Asn Asp Leu Pro Glu
                                105
Glu Ser Thr Val Asp Tyr Thr Trp Cys Lys Arg Tyr Glu Leu Gln Asp
                            120
                                                125
Asp Gly Arg Thr Trp Leu Pro Lys Ala Gly Ala Val Ser Thr Gly Ala
                                            140
                        135
Val Asp Asn Thr Ala Ala Pro Glu Pro Thr Val Lys Val Glu Ala Thr
                    150
                                        155
Val Glu Cys Val Pro Leu Glu Asn Arg Thr Pro Ala Val Arg Phe Ala
                                    170
Val His Leu Thr Ser Asp Lys Tyr Gln Ser His Ile Thr Lys Glu Gln
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Gln Leu Ala Ala Ser Glu Met Ser Leu Asp Glu Gly Asn Thr Tyr Leu
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195 200 205 Gln Asn Leu Leu Gln Ala Lys Asn Asp Ile Pro Glu Val Asp Glu Leu

Ser Leu Asn Ala Glu Trp Lys Leu Val Gln Ala Ile Lys Gln Val Phe

220

215

225					230					235					240
		_		245	His				250					255	
Asp	Trp	Leu	Arg 260	Val	Asp	Ala	Gly	Asp 265	Arg	Asn	Glu	Leu	Val 270	Arg	Glu
Trp	Arg	Ser 275	Gly	Lys	Leu	Thr	Leu 280	Leu	Lys	Ser	Glu	Ser 285	Thr	Ser	Glu
Thr	Gly 290	Val	Thr	Thr	Asp	Gln 295	Asp	Pro	Glu	Pro	Asp 300	Asn	Gly	Ile	Gln
Ile 305		Glu	Asn	Asp	Asp 310	Glu	Thr	Thr	Arg	Tyr 315	Pro	Val	Val	Arg	Met 320
	Phe	Arg	Lys	Gln 325	Leu	Leu	Ala	Gln	Phe 330		Ala	Asn	Glu	Leu 335	
His	His	Leu	Thr 340	Arg	Glu	Glu	Tyr	Glu 345	Gly	Ile	Ser	Ala	Leu 350	Glu	Met
Asp	Thr	Asp 355	Asn	Gly	Tyr	Val	Gln 360	Asn	Leu	Leu	Leu	Ala 365	Ala	Glu	Asn
Cys	Glu 370	Glu	Val	Lys	Gly	Tyr 375	Asp	Thr	Lys	Asp	Leu 380	Trp	Arg	Tyr	Thr
Glu 385	Ala	Ile	Arg	Lys	Val 390	Phe	Ser	Gln	Glu	Lys 395	Arg	His	Glu	Leu	Ala 400
Leu	Val	Leu	Arg	Phe 405	Thr	Arg	Ile	Trp	Ala 410	Ala	Thr	Asp	Tyr	Ile 415	Asp
Arg	Gly	Ile	Leu 420	Val	Arg	Glu	Trp	Ala 425	Ala	Gly	Asn	Arg	Ile 430	Ser	Asn
Ile	Gln	Arg 435	Thr	Asp	Ser	Gly	Thr 440	Asn	Ala	Asp	Gly	Ala 445	Tyr	Val	Thr
Asp	Arg 450	Gly	Glu	Gly	Ala	His 455	His	Thr	Leu	Asp	Thr 460	Leu	Asp	Leu	Glu
Ile 465	Ala	Cys	Ala	Leu	Leu 470	Pro	Met	Asp	Phe	His 475	His	Phe	Glu	Ile	Pro 480
Ser	Ser	Val	Leu	Arg 485	Arg	Ala	Lys	Glu	Ile 490	Val	Ala	Lys	Lys	Glu 495	Glu
Pro	Trp	Lys	Ser 500	Trp	Ser	Ala	Ile	Leu 505	Arg	Asn	Gln	Pro	Gly 510	Val	Leu
		515	_		Ala		520					525			
Asn	Ile 530	His	His	Thr	Pro	Ala 535	Ala	His	Leu	Glu	Phe 540	Val	Asn	Lys	Ala
545					Asn 550					555					560
Ala	Ala	Val	Glu	Thr 565	Glu	Ala	Pro	Val	Glu 570	Gln	Pro	Gln	Val	Glu 575	Asn
Leu	Gly	Ser	Gly 580	Val	Phe	Ser	Ile	Asp 585	Gly	Leu	Met	Gly	Gly 590	Asn	Thr
Glu	Pro	Val 595	Ala	Asp	Thr	Ser	Ser 600	Asn	Glu	Val	Glu	Lys 605	Thr	Glu	Asn
	610				Ser	615					620				
625	_		_		Gly 630					635				_	640
				645	Asp				650					655	
Pro	Val	Ile	Glu 660	Tyr	Pro	Ala	Tyr	Phe 665	Glu	Pro	Gly	Arg	Tyr 670	Glu	Gly
		675	_		Tyr		680			_		685			
	690	_		_	Val	695					700				
Ala 705	Lys	Thr	Ile	Gln	Arg 710	Thr	Ala	Ser	Lys	Val 715	Leu	Asp	Met	Gly	Asn 720

Leu Val His Ala Leu Ala Leu Gln Pro Glu Asn Leu Glu Thr Glu Phe 725 730 Ser Val Glu Pro Gln Ile Pro Glu Gly Ala Phe Thr Thr Ala Thr 740 745 Leu Arg Glu Phe Ile Asp Ala Tyr Asn Ala Ser Leu Pro Ala Leu Leu 760 Ser Ala Asp Glu Ile Lys Ala Leu Leu Glu Glu His Asn Ala Ser Leu 775 780 Pro Ala Gln Val Pro Leu Gly Ala Ser Gln Glu Glu Thr Ala Gln Ser 790 795 Tyr Met Ala Leu Pro Ala Glu Tyr Gln Arg Ile Glu Glu Gly Gln Lys 810 Gln Thr Ala Ala Ala Met Lys Ala Cys Ile Lys Glu Tyr Asn Ala Thr 825 Leu Pro Val Pro Val Lys Thr Ser Gly Ser Arg Asp Ala Leu Leu Glu 840 Gln Leu Ala Ile Ile Asn Pro Asp Leu Val Ala Gln Glu Ala Gln Lys 855 860 Ser Thr Pro Leu Lys Val Ser Gly Ser Lys Ala Asp Met Ile Gln Ala 870 875 Val Lys Ser Val Lys Pro Asp Ala Ile Phe Ala Asp Glu Leu Leu Asp 885 890 Val Trp Arg Asp Asn Pro Asp Glu Lys Ile Leu Val Thr Arg Gln Gln 900 905 910 Leu Ala Thr Ala Arg Ala Ile Gln Ser Ala Leu Leu Ala His Pro Thr 920 925 Ala Gly Met Leu Leu Thr His Pro Ser Arg Ala Val Glu Val Ser Tyr 930 935 940 Phe Gly Phe Asp Asp Glu Thr Gly Leu Glu Val Arg Val Arg Pro Asp 950 955 Leu Glu Ile Glu Leu Asp Gly Val Arg Ile Gly Ala Asp Leu Lys Thr 965 970 Ile Ser Met Trp Asn Val Lys Gln Glu Ser Leu Arg Ala Arg Leu His 980 985 990 Arg Glu Ile Ile Asp Arg Asp Tyr His Leu Ser Ala Ala Met Tyr Cys 1000 1005 Glu Thr Ala Ala Leu Asp Gln Phe Phe Trp Ile Phe Val Asn Lys Asp 1015 1020 Glu Asn Tyr His Trp Ile Ala Ile Ile Glu Ala Ser Thr Glu Leu Leu 1030 1035 Glu Leu Gly Met Leu Glu Tyr Arg Lys Thr Ile Arg Ala Ile Ala Thr 1050 1045 Gly Phe Asp Thr Gly Glu Trp Pro Ala Pro Ile Thr Thr Asp Tyr Thr 1065 Asp Glu Leu Asn Asp Phe Asp Leu Arg Arg Leu Glu Ala Leu Arg Ala 1080 Gln Ala 1090 <210> 6367 <211> 365 <212> PRT <213> Enterobacter cloacae <400> 6367 Gly Gly Phe Met His Asn Thr Asn Val Thr Val Thr Asp Gln Asn Thr 5 10 Val Ile Asn Ser Asn Val Ala Leu Phe Asp Ser Gln Tyr Leu Asn Ala 25 Ile Ser Thr Phe Ala Gln Ile Met Ala Gln Gly Thr Ala Thr Val Pro

Lys His Leu Gln Gly Asn Gln Ala Asp Cys Met Ala Val Ala Met Gln 55 Ala Gln Trp Gln Met Asn Pro Phe Ala Val Ala Gln Lys Thr His 70 75 Leu Ile Asn Gly Val Leu Gly Tyr Glu Ala Gln Leu Val Asn Ala Val 8.5 90 Ile Ser Arg Ser Gly Val Leu Ala Ser Arg Phe Glu Tyr Glu Trp Tyr 105 100 Gly Pro Trp Glu Lys Val Val Gly Lys Phe His Ile Arg Lys Gly Asp 120 125 Lys Gly Glu Tyr Arg Val Pro Gly Trp Thr Leu Ala Asp Glu Ala Gly 135 140 Ile Gly Ile Ile Arg Ala Thr Leu Lys Gly Glu Asp Gln Pro Arg 150 155 Glu Leu Asp Leu Leu Leu Ala Gln Ala Arg Thr Arg Asn Ser Thr Leu 165 170 Trp Ala Asp Asp Pro Arg Gln Gln Leu Ala Tyr Leu Ala Val Lys Arg 180 185 Trp Ala Arg Leu Phe Cys Pro Asp Val Ile Leu Gly Val Tyr Thr Pro 200 205 Asp Glu Leu Asp Asp Arg Arg Glu Glu Arg Glu Val Asn Pro Ala Pro 215 220 Ala Gln His Val Ser Leu Ala Asp Ile Ser Gly Asp Asn Val Thr Thr 230 235 Thr Gln Thr Ala Gln Glu Ser Ala Gln Asn Ile Tyr Ala Leu Ala Asp 250 245 Asp Phe Arg Asp Arg Ile Glu Ala Ala Gln Asp Val Asp Ser Ala Lys 270 260 265 Ala Leu Arg Ala Asp Ile Glu Thr Val Lys Ala Thr Leu Gly Ser Ala 275 280 285 Leu Phe Thr Glu Leu Lys Asn Lys Ala Val Lys Arg Tyr Tyr Leu Val 295 300 Asp Ala Arg Asn Lys Val Glu Ala Ala Ile Asn Ser Leu Pro Ser Ser 310 315 Asp Glu Pro Asp Ala Ala Ala Arg Phe Ala Glu Val Glu Arg Val Leu 325 330 Ala Ala Ser Lys Arg His Leu Gly Asp Glu Leu His Gly Gln Phe Ser 340 345 Ile Thr Leu Ala Asp Met Lys Pro Glu Tyr Val Asp 360

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<210> 6368
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## <400> 6368

<sup>&</sup>lt;211> 72

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;210> 6369

<sup>&</sup>lt;211> 70

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

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Val Phe Ile Pro Arg Met Arg Lys Gly Glu Gln Lys Ala Tyr Tyr Ser

2581

325 330 Leu Ser Ser Ile Gly Ala Arg Phe Asn Ala Ala Val Lys Arg Ala Gly 340 345 Ile Arg Arg Arg Asn Pro Tyr His Thr Arg His Thr Phe Ala Cys Trp 360 365 Leu Leu Ser Ala Gly Ala Asn Pro Ser Phe Ile Ala Ser Gln Met Gly 375 380 His Glu Asn Ala Gln Met Val Tyr Glu Val Tyr Gly Ala Trp Ile Glu 390 395 Glu Met Asn Gly Glu Gln Val Leu Met Leu Asn Asn Lys Leu Ala Arg 410

<210> 6371 <211> 84 <212> PRT <213> Enterobacter cloacae

<210> 6372 <211> 397 <212> PRT <213> Enterobacter cloacae

(213) Briterobacter Grodede

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2582 Lys Ser Thr Phe Ile Arg Ala Val Ser Ala Ala Lys Pro Lys Val Ala 185 Asp Tyr Pro Phe Thr Thr Leu Val Pro Ser Leu Gly Val Val Arg Met 200 205 Asp Asn Glu Lys Ser Phe Val Val Ala Asp Ile Pro Gly Leu Ile Glu 215 220 Gly Ala Ala Glu Gly Ala Gly Leu Gly Ile Arg Phe Leu Lys His Leu 235 230 Glu Arg Cys Arg Val Leu Leu His Leu Ile Asp Ile Asp Pro Ile Asp 250 245 Gly Ser Asp Pro Val Glu Asn Ala Arg Ile Ile Ile Gly Glu Leu Glu 260 265 270 Lys Tyr Ser Glu Lys Leu Ala Gln Lys Pro Arg Trp Leu Val Phe Asn 280 Lys Ile Asp Leu Met Asp Lys Ala Glu Ala Glu Ala Lys Ala Lys Ala 295 Ile Ala Glu Ala Met Gly Trp Glu Asp Lys Tyr Tyr Leu Ile Ser Ala 310 315 Ala Ser Gln Val Gly Val Lys Asp Leu Cys Trp Asp Val Met Thr Phe 325 330 Ile Ile Glu Asn Pro Val Val Gln Ala Glu Glu Ala Lys Gln Pro Glu 340 345 Lys Val Glu Phe Met Trp Asp Asp Tyr His Arg Gln Gln Leu Glu Glu 360 Leu Glu Ala Glu Glu Asp Asp Glu Asp Trp Asp Asp Trp Asp Glu 375 Asp Asp Glu Glu Gly Val Glu Phe Ile Tyr Lys His 390 <210> 6373 <211> 122 <212> PRT <213> Enterobacter cloacae <400> 6373 Ile Phe Ile Ala His Ser Glu Ser Tyr Glu Asp Val Arg Gly Ser Gly 10 Val Tyr Met Tyr Ala Val Phe Gln Ser Gly Gly Lys Gln His Arg Val 25 Ser Glu Gly Gln Thr Val Arg Leu Glu Lys Leu Asp Ile Ala Thr Gly 40 45 Glu Ser Val Glu Phe Ala Glu Val Leu Met Ile Ala Asn Gly Glu Glu 55 Val Lys Ile Gly Val Pro Phe Val Asp Gly Gly Val Ile Lys Ala Glu 70 75 Val Val Ala His Gly Arg Gly Glu Lys Val Lys Ile Val Lys Phe Arg

Asp Val Lys Ile Thr Gly Ile Ser Ala <210> 6374

<211> 281

<212> PRT

<213> Enterobacter cloacae

<400> 6374

Val Arg Phe Ser Arg Ser Gly Asn Gly Leu Lys Pro Arg Asn Val Leu 10 Arg Gly Phe Leu His Trp Lys Pro Gly Lys Phe Ser Val Gly Lys Thr

Arg Arg Lys His Tyr Arg Lys Gln Gln Gly His Arg Gln Trp Phe Thr

90

Gly Met Lys Gln Gln Ala Gly Ile Gly Ile Leu Leu Ala Leu Thr Thr Ala Met Cys Trp Gly Ala Leu Pro Ile Ala Met Lys Gln Val Leu Glu Val Met Glu Pro Pro Thr Val Val Phe Tyr Arg Phe Leu Met Ala Ser 70 75 Ile Gly Leu Gly Ala Ile Leu Ala Val Lys Gly Lys Leu Pro Pro Leu 90 85 Arg Ile Phe Arg Lys Pro Arg Trp Leu Val Leu Leu Ala Ile Ala Thr 100 105 Gly Gly Leu Phe Gly Asn Phe Ile Leu Phe Ser Ser Leu Gln Tyr 120 125 Leu Ser Pro Thr Ala Ser Gln Val Ile Gly Gln Leu Ser Pro Val Gly 135 140 Met Met Val Ala Ser Val Phe Ile Leu Lys Glu Lys Met Arg Gly Thr 150 155 Gln Ile Ile Gly Ala Ser Met Leu Leu Cys Gly Leu Val Met Phe Phe 170 Asn Thr Ser Leu Ile Glu Ile Phe Thr Arg Leu Thr Asp Tyr Thr Trp 185 Gly Val Ile Phe Gly Val Gly Ala Ala Thr Val Trp Val Ser Tyr Gly 200 Val Ala Gln Lys Val Leu Leu Arg Arg Leu Ala Ser Gln Gln Ile Leu Phe Leu Leu Tyr Thr Leu Cys Thr Leu Ala Leu Leu Pro Leu Ala Lys 230 235 Pro Gly Val Ile Thr Gln Leu Ser Asp Trp Gln Leu Ala Cys Leu Ile 245 250 Phe Cys Gly Leu Asn Thr Leu Val Gly Tyr Gly Ala Leu Ala Glu Ala 265 Met Ala Arg Trp Gln Ala His Arg

<210> 6375 <211> 160

<212> PRT <213> Enterobacter cloacae

<400> 6375

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<210> 6376 <211> 86 <212> PRT <213> Enterobacter cloacae <400> 6376 Met Ala His Lys Lys Ala Gly Gly Ser Thr Arg Asn Gly Arg Asp Ser Glu Ala Lys Arg Leu Gly Val Lys Arg Phe Gly Gly Glu Ser Val Leu 25 Ala Gly Ser Ile Ile Val Arg Gln Arg Gly Thr Lys Phe His Ala Gly 35 40 Thr Asn Val Gly Cys Gly Arg Asp His Thr Leu Phe Ala Lys Ala Asp 55 Gly Lys Val Lys Phe Glu Val Lys Gly Pro Asn Asn Arg Lys Tyr Ile 70 Ser Ile Val Ala Glu <210> 6377 <211> 365 <212> PRT <213> Enterobacter cloacae <400> 6377 Arg Ser His Gln Asn Arg Thr Arg Arg Gly Leu Pro Ser Gly Glu Pro 10 Glu Met Asn Ser Met Arg Arg Leu Met Val Leu Leu Ala Val Ile 25 Leu Leu Phe Phe Gln Leu Ile Ser Val Val Trp Leu Trp His Glu Ser Arg Glu Gln Ile Gly Phe Leu Val Asn Glu Thr Leu Ser Ala Lys Ala Arg Asn Asn His Val Glu Lys Glu Ile Arg Glu Ala Ile Ala Ser Leu 75 Leu Val Pro Ser Leu Val Met Val Gly Phe Thr Leu Leu Phe Ser Phe 90 Trp Ala Val Thr Trp Ile Thr Arg Pro Leu Asn Lys Leu Arg Ala Ser 105 Leu Ala Asn Arg Ser Ala Asp Asn Leu Thr Pro Leu Pro Met Tyr Ser 120 125 Asp Met Glu Glu Ile Gly Ala Val Thr Thr Ser Leu Asn Gln Leu Leu 135 140 Ala Arg Leu Asp His Thr Ile Gln Gln Glu Arg Leu Phe Thr Ala Asp 150 155 Ala Ala His Glu Leu Arg Thr Pro Leu Ala Gly Ile Arg Leu His Leu 165 170 Glu Leu Met Ala Gln Ser Gly Ser Pro Gln Ala Thr Pro Leu Ile Asn 185 190 Arg Ile Asp Gln Leu Met His Thr Val Glu Gln Leu Leu Met Leu Ala 200 205 Arg Ala Gly Gln Ala Met Ala Ser Gly His Tyr Asp Thr Val Asn Trp 215 220 Thr Glu Ser Ile Ile Ala Pro Leu Ser Leu Glu His Glu Ala Lys Glu 230 235 His Thr Val Leu Trp Pro Ala His Ser Thr Leu Thr Val Gln Gly Asp 250 Ala Val Leu Leu Arg Leu Met Leu Arg Asn Leu Leu Glu Asn Ala Ala 265

Arg Tyr Ser Pro Ala Gly Thr Ile Ile Glu Val Ala Leu Thr Ala Thr 275 280 285

Glu Gly Gly Thr Arg Val Ser Val Thr Asp Gln Gly Pro Gly Ile Asp 290 295 300

Glu Ala His Arg Gln Ser Ile Thr Glu Pro Phe Arg Arg Leu Asp Gln 305 310 315 320

Arg Tyr Gly Gly Ser Gly Leu Gly Leu Ser Ile Val Gln Arg Ile Val 325 330 335

Gln Leu His His Gly His Leu Thr Leu Glu Asn Gly Ala Glu Gly Gly 340 345 350

Leu Ile Ala Ser Cys Trp Leu Pro Thr Lys Ile Gly 365

<210> 6378 <211> 125 <212> PRT

<213> Enterobacter cloacae

<400> 6378

Arg Pro Ser Lys Glu Arg Lys IIe Ser Leu Pro Arg
115 120 125

150

<210> 6379 <211> 223 <212> PRT <213> Enterobacter cloacae

<400> 6379

Leu Ala Met Lys Leu Leu Ile Val Glu Asp Asp Leu Leu Leu Gln Glu 10 Gly Leu Ala Leu Ala Leu Gly Asn Glu Gly Tyr Ala Leu Asp Cys Ala 20 25 Ala Thr Ala Ala Glu Ala Asp Ala Leu Ile Gln Ser Gly Glu Tyr Ser 40 Leu Val Ile Leu Asp Leu Gly Leu Pro Asp Lys Asp Gly Ala Thr Leu 55 Leu Cys Gln Trp Arg Arg Gly Val Glu Asn Pro Val Leu Ile Leu 70 Thr Ala Arg Asp Ala Ile Glu Asp Arg Ile Asn Gly Leu Asp Ser Gly Ala Asp Asp Tyr Leu Val Lys Pro Phe Ala Leu Ala Glu Leu Gln Ala 105 Arg Val Arg Ala Leu Ile Arg Arg Tyr Gln Gly His Ser Asp Asn Leu 120 125 Leu Thr Asp Gly Asp Ile Thr Leu Asn Leu Gln Thr Gln Gln Val Leu 135 140 Arg Gln Ser Gln Pro Val Glu Val Thr Pro Lys Glu Phe Ala Leu Leu

Thr Arg Leu Ile Met Arg Ser Gly Gln Thr Val His Arg Glu Thr Leu

155

2586

165 170 Gln Gln Asp Ile Tyr Ser Trp Gln Asp Asp Pro Gly Ser Asn Thr Leu 185 Glu Val His Ile His Asn Leu Arg Arg Lys Leu Gly Lys Asp Arg Ile 200 Lys Thr Val Arg Gly Val Gly Tyr Arg Leu Glu Ser Gln Lys <210> 6380 <211> 481 <212> PRT <213> Enterobacter cloacae <400> 6380 Arg Glu Ile Met Arg Phe Ser Ser Phe Ile Ile Gly Leu Thr Thr Ser 10 Ile Thr Tyr Thr Val Gln Ala Ala Asn Val Asp Glu Tyr Ile Asn Gln 25 Leu Pro Ala Gly Ala Asn Leu Ala Leu Met Val Gln Lys Val Gly Ala 40 Gln Ala Pro Glu Ile Asp Tyr His Ser Gln Gln Met Ala Leu Pro Ala 55 Ser Thr Gln Lys Val Ile Thr Ala Leu Ala Ala Leu Leu Gln Leu Gly 70 75 Pro Asp Phe Arg Phe Thr Thr Leu Glu Thr Arg Gly Asn Val Glu 90 Gly Glu Leu Lys Gly Asp Leu Ile Ala Arg Phe Gly Gly Asp Pro 105 Thr Phe Lys Arg Gln Asp Asp Arg Asn Met Val Ala Val Leu Lys Lys 115 120 Ser Gly Val Thr Lys Ile Asp Gly Asn Val Leu Ile Asp Thr Ser Ile 130 135 Phe Ala Ser His Asp Lys Ala Pro Gly Trp Pro Trp Asn Asp Met Thr 150 155 Gln Cys Phe Ser Ala Pro Pro Ala Ala Ile Val Asp Arg Asn Cys 165 170 Phe Ser Val Ser Leu Tyr Ser Ala Pro Lys Pro Asn Asp Leu Ala Phe 185 180 Ile Arg Val Ala Ser Tyr Tyr Pro Val Thr Met Phe Ser Gln Val Arg 200 195 Thr Leu Ala Lys Gly Ser Pro Glu Ala Gln Tyr Cys Glu Leu Asp Val 215 220 Val Pro Gly Asp Leu Asn Arg Tyr Thr Leu Thr Gly Cys Leu Thr Gln 235 230 Arg Ala Asp Pro Leu Pro Leu Ala Phe Ala Ile Gln Asp Gly Ala Gly 245 250 Tyr Ala Gly Ala Ile Phe Lys Asp Glu Leu Lys Gln Ala Gly Ile Thr 260 265 270 Tyr Thr Gly Thr Leu Leu Arg Gln Thr Gln Val Asn Glu Pro Gly Thr 280 285 Val Ile Ala Ser Lys Gln Ser Ala Pro Leu His Asp Leu Leu Lys Ile 295 300 Met Leu Lys Lys Ser Asp Asn Met Ile Ala Asp Thr Val Phe Arg Met 310 315 Ile Gly His Ala Arg Phe Gly Val Pro Gly Thr Trp Arg Ala Gly Ser 325 330 Asp Ala Val Arg Gln Ile Leu Arg Gln Gln Ala Gly Ile Asp Leu Gly 345 340 Asn Thr Ile Ala Val Asp Gly Ser Gly Leu Ser Arg His Asn Leu Ile 360

Ser Pro Ala Thr Met Met Gln Val Leu Gln Tyr Ile Ala Gln His Asp

375 380 Ala Glu Leu Asn Phe Ile Thr Met Leu Pro Leu Ala Gly His Asp Gly 390 395 Ser Leu Gln Tyr Arg Ala Gly Leu His Ala Ala Gly Val Asp Gly Lys 410 Val Ser Ala Lys Thr Gly Ser Leu Gln Gly Val Tyr Asn Leu Ala Gly 420 425 Phe Ile Thr Thr Ala Ser Gly Gln Arg Met Ala Phe Val Gln Tyr Leu 440 Ser Gly Tyr Ala Val Glu Pro Ala Asp Gln Arg Asn Arg Ile Pro 455 Leu Val Arg Phe Glu Ser Arg Leu Tyr Lys Asp Ile Tyr Gln Asn Asn 475 470

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<211> 232
<212> PRT
<213> Enterobacter cloacae
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<210> 6382 <211> 256 <212> PRT

<213> Enterobacter cloacae

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<210> 6383

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 6383

Arg Cys Ser Asn Thr Val Thr Gln Gln Ser Ala Phe Arg Asn Tyr Gln 10 Arg Lys Asn Asn Met Val Glu Pro Ser Leu Lys Glu Val Val Lys Ala Met Cys Lys Ala Tyr Pro Gly Gly Arg Glu Ala Met Ala Gly Ala Leu 40 Gly Met Ser Val Thr Gln Phe Asn Asn Asn Leu Tyr Glu Lys Asn Gly Cys Arg Phe Phe Glu Val Asn Glu Leu Glu Ala Met Glu Asp Ile Ser Asn Thr Ser Leu Leu Ala Asp Tyr Phe Ala Arg Arg Arg Gly Ala Leu 90 8.5 Leu Val Asp Val Pro Gln Leu Glu Asp Leu Asp Arg Val Asp Leu Phe 105 110 Asp Arg Ala Met Arg Thr Ser Ala Ala Arg Gly Arg Val Asp Thr Val 115 120 125 Ile Gln Arg Ala Leu Glu Asp Gly Val Ile Glu Arg His Glu Ala Glu 135 140 Glu Ile Asn Glu Tyr His Arg Arg His Leu Ala Ala Arg Glu Glu Glu 150 155 Ile Arg Ala Ile Val Ala Leu Phe Ser Arg Lys Lys Ser Gln Lys Lys 165 170

<212> PRT

<213> Enterobacter cloacae

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<400> 6386 Ser Glu Ile Arg Arg Pro Val Asn Ala Ala Val Ser Val Phe Arg Ser Cys Ala Gly Asn Arg Arg Ile Ser Met Lys Ser Gly Asp Asn Met Arg 25 Asp Ile Gln Met Val Leu Val Arg Trp Gly Asn Trp Ser Lys Tyr Lys 40 Ile Glu Ala Asp Val Gly Tyr Ser Pro Ile Ala Ala Gly Phe Lys Gly 55 Leu Leu Pro Glu Ser Gly Ala Met Pro Lys Cys Thr Glu Asp Asp Ala 75 70 Leu Ile Ile Asp Ser Cys Leu Ala Arg Leu Lys Leu Lys Arg Pro Asp 90 85 Glu Tyr Glu Leu Ile Phe Asp His Tyr Val Lys Gly Val Ser Lys Arg 105 100 Gly Ile Gly Arg Lys Leu Lys Leu Ser Glu Gly Met Val Arg Ile Lys 120 Phe Gln Met Ala Glu Gly Phe Val Glu Gly Cys Leu Ala Met Leu Asp 135 Ile Arg Leu Gln Met Asp Glu <210> 6387 <211> 312 <212> PRT <213> Enterobacter cloacae <400> 6387 Arg Thr Thr Met Ser Leu Leu Met Pro Ser Arg Pro Ile Val Ile Asn Pro Asp Leu Ala Tyr Ser Ile Gly Leu Asn Glu Ala Ile Ala Leu Gln 25 Gln Val Asn Tyr Trp Leu Lys Glu Thr Thr Ser Gly Leu Glu Arg Asp 40 Gly Val Arg Trp Ile Tyr Asn Thr Thr Glu Gln Trp Leu Glu Gln Phe 5.5 Pro Phe Trp Ser Glu Ser Thr Leu Lys Arg Thr Phe Thr Arg Leu Lys 75 Asn Leu Gly Val Leu Lys Val Asp Gln Leu Asn Lys Ser Gln Arg Asp 8.5 90 Met Thr Asn Tyr Tyr Thr Ile Asn Tyr Glu Ser Glu Leu Leu Asp Glu 100 105 Val Lys Val Thr Lys Ser Lys Ser Ser Lys Cys Thr Leu Pro Ser Gly 120 Gln Asn Glu Pro Met Glu Glu Val Lys Val Glu Arg Ser Ile Gly Ser 135 140 Lys Arg Thr Ala Leu Ile Arg Ser Asn Cys Thr Asp Val Leu Thr Glu 155 Asn Thr Thr Glu Asn Thr Thr Asp Ile Lys Lys Pro Ile Cys Pro Val 170 Ala Pro Gln Pro Asp Ser Asp Val Leu Ile Thr Asp Gln Ala Lys Gln 185

Val Leu Thr His Leu Asn His Val Thr Ser Ser Arg Tyr Gln Val Ser 195 200 205 Thr Thr Ser Leu Gln Asn Ile Arg Ala Arg Ile Gly Glu Gly Phe Thr

Val Glu Glu Leu Ser Leu Val Val Asp Tyr Cys Asn Ala Lys Trp Ser

Asp Asp Leu Thr Met Ala Ser Tyr Leu Arg Pro Gln Thr Leu Phe Gln

220

235

250

215

230

245

2591 Pro Thr Lys Phe Pro Ala Tyr Leu Lys Ser Ala Thr Asn Trp Ala Asn 265 Ala Gly Arg Pro Ala Arg Val Asn Gly Lys Trp Glu Arg Glu Asp Gly 280 Ile Phe Lys Ser Ser Phe Lys Asn Thr Glu Tyr Ser Lys Val Pro Ala 295 Gly Phe Arg Gly Ala Asn Ser <210> 6388 <211> 125 <212> PRT

<213> Enterobacter cloacae

<400> 6388 Ala Tyr Thr Gly Ser Cys Arg Ser His Glu Lys Thr Ala Gly Ala Arg 10 Arg Met Lys Pro Glu Leu Thr Pro Arg Gln Asn Glu Val Phe Glu Ala 20 25 Ile Lys Val His Ile Glu Lys Ala Gly Phe Pro Pro Thr Met Leu Glu Leu Ala Gly Leu Ile Gly Cys Ala Ser Pro Asn Ala Ala Val Ala His Val Lys Ser Leu Lys Lys Gly Tyr Ile Thr Val Ala Pro Gly Ala 70 Ala Arg Gly Ile Thr Val Val Lys Thr Glu Trp Asp Ala Asp Pro Val Thr Ile Ile Lys Gly Leu Leu Ser Gly Gly Asp Lys Ala Arg Asp Asn 100 105

Ala Val Glu Trp Leu Lys Lys Gln Gly Val Thr Leu

<210> 6389 <211> 72 <212> PRT <213> Enterobacter cloacae

<400> 6389 Cys Asn Asn Pro Ala Asp Asp Pro His His Leu Ile Gly His Gly Gln 10 Gly Gly Met Gly Thr Lys Ala His Asp Leu Phe Val Ile Pro Leu Cys 20 25 Arg Ala His His Asp Glu Leu His Ala Asp Pro Val Ala Phe Glu Ala 40 45 Lys Tyr Gly Asp Gln Leu Thr Leu Leu Phe Arg Phe Leu Asp Arg Ala Leu Ala Ile Gly Val Leu Ala 70 .

<210> 6390 <211> 482 <212> PRT <213> Enterobacter cloacae

<400> 6390 Ile Thr Pro Gln Thr Gln Asn Phe Asp Phe Phe Leu Leu Leu Asn Ile 10 Ser Ile Ala Ala Ile Val Ala Ala Asn Ala Thr His Leu Thr Pro Val 25 Ile Ser Thr Phe Thr Arg Phe Phe Phe Ala Ser Trp Gly Val Leu Asn 40

Leu Gly Ile Ile Trp Arg Leu Asp Glu Leu Met Phe Ile Val Leu Met 55 Leu Asn Leu Leu Tyr Gly Phe Ala Ile Tyr Arg His Ala Leu Thr Ser 70 75 His Ala Phe Phe Ile Gln Gln Ala Leu Leu Glu Glu Lys Ser Ser Arg 90 85 Leu Ala Glu Gln Phe Arg Gln Ala Lys Glu Asp Ala Glu Gln Ala Leu 105 Leu Asp Lys Asn Gln Phe Leu Thr Thr Ala Ser His Asp Leu Arg Gln 115 120 Pro Val His Ala Met Gly Phe Leu Ile Glu Ala Ile Leu His Arg Asn 135 140 Arg Asp Gly Ser Leu Thr Pro Gln Leu Leu Asp Leu Gln Gln Ser Val 150 155 Arg Ser Val His Leu Met Leu Asn Ser Leu Leu Asp Leu Ser Lys Ile 170 165 Glu Ser Gly Asn Val Leu Ser Ala Pro Thr Lys Val Asp Ile Gly Ala 180 185 Leu Leu Asp Ser Val Ile Thr Leu Phe Arg Glu Glu Ala Asn Ser Arg 200 195 Ala Leu Arg Leu Cys Ile Arg Arg Pro Lys Arg His Ile Tyr Val Met 215 220 Gly Asp Pro Leu Leu Val Arq Gln Ser Leu Ile Asn Leu Ile Gln Asn 230 235 Ala Leu Arg Tyr Thr Leu Gln Gly Gly Val Leu Val Ala Ile Arg Pro 245 250 Arg Gly Asp Glu Cys Met Val Glu Val Trp Asp Thr Gly Val Gly Ile 265 Ala Asp Glu Glu Lys Gly Lys Ile Phe Ser Pro Tyr Tyr Arg Pro Glu 280 Leu Ala Trp Lys Ile Asp Ser Ala Gly His Gly Leu Gly Leu Ala Val 295 Val Ala Arg Cys Ala Lys Leu Met Lys Val Lys Tyr Gly Met Gln Ser 310 315 Ile Glu Gly Lys Gly Ser Arg Phe Trp Met Arg Phe Thr Gln Tyr Ala 330 325 Gly Glu Asp Ser Val Leu Asp Thr Pro Pro Ala Ala Asp Asn Thr Ala 345 Thr Pro Val Arg Tyr Ala Pro Leu His Gly Ser Cys Leu Val Val Asp 360 Asp Asp Pro Leu Val Thr Ser Ala Trp Glu Ser Leu Met Ser Val Trp 375 Gly Ile Asp Val Arg Cys Ala Ala Ser Ala Glu Glu Ala Phe Ala Ile 390 395 Ile Asp Asp Gly Phe Thr Pro Phe Ala Val Leu Cys Asp Gln Arg Leu 405 410 Arg Ser Gly Glu Ser Gly Phe Asp Ile Leu Lys Ala Leu Phe Glu Arg 425 420 Leu Pro Asp Met Ser Gly Ala Ile Val Ser Gly Glu Phe Asn Ser Pro 440 445 Val Leu Leu Glu Ala Glu Gln Glu Gly Tyr Leu Val Leu Arg Lys Pro 460 455 Leu Glu Pro Ala Lys Leu His Ala Leu Leu Thr Gln Trp Leu Gly Cys 470 475 Arq

<sup>&</sup>lt;210> 6391

<sup>&</sup>lt;211> 462

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6391 Pro Gly Arg Cys Val Met Ser Glu Met Met Met Pro Cys Ser Tyr Glu Ala Glu Gln Ala Val Leu Gly Gly Leu Met Leu Asp Asn Asp Arg Trp 25 Asp Glu Val Ile Leu Gln Ile Ser Pro Glu Asp Leu Phe Ser Arg Pro 40 His Arg Met Val Phe Arg Val Met Ala Glu Leu Ala Gly Glu Gly Leu 55 Pro Leu Asp Leu Ile Thr Ile Thr Glu Arg Leu Glu Asn Arg Gly Asp 70 75 Leu Glu Gln Cys Gly Gly Phe Ala Tyr Leu Ala Glu Met Ser Lys Asn 85 90 Thr Pro Ser Ala Ala Asn Ile Leu Ala Tyr Ala Gly Val Val Ala Glu 100 105 Lys Ser Arg Leu Arg Gln Leu Met Thr Val Gly Asn Ser Leu Leu Ser 120 115 Asp Val Gln Ala Pro Lys Ala Ser Ser Ala Gly Ile Leu Glu Ser Ala 135 140 Glu Gly Lys Leu Phe Asn Ile Ala Glu Gln Gly Ala Met Gln Leu Asn 150 155 Ser Glu Thr Gly Val Asn Glu Ala Leu Asp Lys Leu Leu Thr Gln Leu 165 170 Glu Ser Met Ser Ala Ser Asp Gly Leu Thr Gly Thr Pro Thr Gly Phe 180 185 Ser Glu Leu Asp Ala Met Thr Cys Gly Leu Glu Pro Gly Asp Leu Ala 200 205 Leu Leu Ala Ala Arg Pro Ser Met Gly Lys Thr Ser Leu Ala Met Ala 215 220 Ala Cys Thr Ala Ala Val Ser Ala Lys Pro Asp Asp His Val Phe Val 230 235 Phe Ser Leu Glu Met Pro Ser Glu Gln Leu Met Met Arg Leu Leu Ala 250 Met Glu Gly Arg Val Glu Leu Ser Arg Leu Arg Ser Gly Asn Met Asp 265 Asp Glu Asp Trp Ala Arg Val Ser Glu Ala Thr Gly Arg Ile Ile Glu 280 Trp Lys Asn Arg Leu Ile Ile Asp Asp Thr Ser Tyr Gln Thr Pro Ala 295 Thr Leu Arg Ala Arg Ala Arg Tyr Val Arg Lys Tyr Gly Arg Pro 310 315 Ser Leu Ile Met Leu Asp Tyr Leu Gln Leu Val Arg Ser Pro Glu Gln 330 Glu Asn Arg Thr Gln Glu Ile Ala Glu Ile Ser Arg Ser Leu Lys Ala 345 Leu Gly Lys Glu Leu Gly Cys Pro Val Leu Ala Leu Ser Gln Leu Asn 360 Arg Leu Val Glu Gln Arg Ala Asp Lys Arg Pro Asn Asn Gly Asp Leu 375 380 Arg Asp Ser Gly Ala Leu Glu Gln Asp Ala Asp Leu Ile Met Phe Ile 390 395 Tyr Arg Asp Glu Val Tyr Asn Pro Gly Thr Pro Asp Ala Gly Val Ala 405 410 Glu Ile Ile Val Gly Lys Gln Arg Gln Gly Pro Thr Gly Thr Val Lys 425 430 Val Lys Phe Asp Gly Arg Tyr Thr Leu Phe Ser Glu Phe Gln Glu Gly 440 Ser Tyr Asp Phe Gly Tyr Arg Ser Gly Arg Lys Gln Ala

<210> 6392 <211> 296 <212> PRT <213> Enterobacter cloacae <400> 6392 Arg Val Cys Lys Met Lys Ile Leu Pro Val Ile Ser Pro Lys Gly Gly 10 Glu Gly Lys Ser Thr Phe Ala Ala Tyr Leu Ala Gly Phe Leu Ala Asp 25 Ala Gly Leu Asn Thr Leu Leu Val Asp Ala Asp Tyr Ser Gln Pro Thr 40 Ala Ser Ser Ile Phe Ala Leu Glu Asp Glu Ser Pro Phe Gly Leu Tyr Glu Leu Leu Met Gln Met Val Ser Asp His Thr Gln Cys Ile Ser Gln 75 Thr Ala Ile Lys Asn Leu Asp Val Ile Tyr Ser Asn Asp Pro Asp Glu 90 85 Leu Leu Pro Thr Ala Met Leu His Ala Ala Asp Gly Arg Leu Arg Leu 105 100 Arg Asn Ile Leu Gln His Pro Phe Phe Asn Arg Tyr Asp Ala Ile Ile 120 125 Val Asp Ser Lys Gly Ala Thr Gly Val Met Thr Glu Leu Ser Leu Leu 135 140 Ser Ser Thr Gly Asn Val Met Gly Ile Val Lys Pro Ile Leu Pro Asp 150 155 Val Arg Glu Phe Ile Arg Gly Ser Leu His Met Leu Thr Arg Leu Lys 165 170 Thr Tyr Glu Asn Tyr Gly Ile Arg Leu Pro Asp Ile Ser Ile Leu Val 185 190 Asn Cys Ile Glu Asn Thr Leu Leu Asp Arg Glu Ala Met Asp Gly Leu 200 205 Ala Ala Ile Ile Asn Glu Lys His Tyr Asp Ala Ser Ala Leu Gly Asn 215 220 Arg Asp Val Tyr Arg Leu Leu Asp Thr Arg Ile Glu Ala Leu Asp Ile 230 235 Phe Lys Leu Gly His Val Lys Gln Gln Pro Val His Arg Leu Glu Tyr 245 250 Lys Thr Arg Arg Lys Gly Pro Ala Ala Ala Val Thr Met His Asp Leu 260 265 270 Ala Cys Glu Leu Phe Pro Glu Trp Gln Ser His Phe Ser Asp Val Leu . 280 Thr Arg Glu Val Arg His Val 290 <210> 6393 <211> 575 <212> PRT <213> Enterobacter cloacae <400> 6393 Leu Arg Leu Pro Gln Arg Glu Glu Thr Gly Met Ser Arg Lys Ser Ser 10 Asn Val Gly Ala Ala Met Leu Gln Pro Gly Arg Gln Ser Gln Ala Ala 25 Gly Asn Ile Ser Val Met Pro Ala Ala Glu Met Pro Met Val Leu Thr 40 Leu Asp Gln Leu Ser Pro Asn Pro Asp Asn Pro Arg Thr Ser Arg Asn 55 60 Pro Arg Tyr Asp Asp Ile Lys Ala Ser Ile Arg Ser Arg Gly Leu Asp

70

75

Thr Val Pro Lys Val Thr Arg Asp Pro Asp Gly Glu Pro Asp Met Tyr 90 Ile Phe Ser Asp Gly Gly Asn Thr Arg Tyr Gln Ile Leu Ser Glu Leu 105 Trp Gln Glu Thr Gly Glu Asp Arg Phe Phe Arg Val His Val Leu Phe 120 Lys Pro Trp Pro Gly Arg Leu Gln Cys Val Ile Gly His Leu Ala Glu 135 140 Asn Glu Val Arg Gly Glu Leu Ser Phe Ile Glu Lys Ala Gln Gly Ile 150 155 His Lys Ala Arg Ser Ile Tyr Glu Glu Gln Met Gly Lys Thr Val Ser 165 170 Leu Arg Gln Leu Ser Glu Leu Leu Thr His Glu Gly Leu Pro Val His 180 185 Tyr Ser Thr Val Ser Arg Met Glu Asp Ala Leu Lys Tyr Leu Tyr Pro 200 Trp Ile Pro Asp Leu Leu Glu Ser Gly Leu Gly Arg Pro Gln Ile Thr 215 220 Ala Leu Leu Ala Leu Arg His Asp Ala Glu Arg Val Trp Asp Glu Phe 230 235 Cys Leu Ile Ser Asp Thr Gly Asp Lys Ser Phe Ser Asp Val Phe Gly 250 Gln Cys Cys Gly Arg Phe Asn Ser Pro Glu Leu Trp Ser Leu Glu Met 265 Phe Arg Asp Glu Leu Ile Gly Asp Leu Leu His Ala Leu Pro His Pro 280 Glu Leu Asp Tyr Asp Arg Trp Met Met Glu Leu Asp Pro Lys Glu Arg 295 300 Asn Arg Arg His His Phe Gly Asp Pro Glu Pro Val Ser Ile Pro Pro 310 315 Ala Asn Ser Leu Val Thr Ala Asp Ser Ala Gly Gln Ala Thr Pro Ala 325 330 Gln Lys Ser Val Glu Val Val Gln Pro Phe Ser Ser Pro Arg Arg Glu 345 Ile Ser Gly Glu Pro Val Thr Pro Ala Pro Asp Asn Thr Pro Pro Glu 360 Lys Leu Asp Lys Gln His Pro Arg His Glu Val Gln Pro Asp Met Tyr 375 Gly Ala Ala Pro Val Ile Ser Gly Glu Ser Ala Asp Val Ser Gly Leu 390 395 Val Thr Leu Ser Asp Gly Tyr Gly Glu Glu Asn Gly Gly Glu Gly Gly 405 410 Asn Gly Glu Asp Gly Leu Leu Ser Leu Leu Thr Pro Glu Pro Glu Val 420 425 Val Leu Gln Asp Asp Ala Pro Val Thr Asn Asp Ser Ile Trp His Val 440 445 Pro Ala His Gln Asp Asp Ile Glu His Leu Gln Asn Thr Ala Phe Arg 455 460 Leu Ala Trp Glu Leu Gly Glu Val Leu Gly Cys Glu Asp Glu Ile Leu 470 475 Pro Gln Arg Asp Asn Asp Met Ser Ala Gly Tyr Val Gly Ala Gly Glu 490 Met Cys Ser Glu Ala Ala Ala Phe Leu Leu Gly Leu Thr Gly Glu Ala 505 Pro Ala Leu His Pro Ala Ala Gly Val Cys Gly Leu Pro Glu Leu Phe 520 Thr Gly Gly Pro Gly Glu Gly Glu Ala Pro Ala Leu Thr Asp Glu Asp 535 540 Ala Leu Lys Leu Leu Arg Leu Leu Arg Val Met Arg Arg Leu Arg Glu 550 555 Leu Gln Arg Gly Leu Thr Tyr Gly Glu Asp Asn Ser Asp Glu

575

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565
                                    570
<210> 6394
<211> 268
<212> PRT
<213> Enterobacter cloacae
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Gln His Asp Ser Leu Phe Thr Leu Pro Pro Tyr Ala Gly Ala Val Leu
Ser Ile Leu Thr Val Gln Asn Gly Arg Asp Gly Gly Arg Lys Gly Lys
                                25
Ile Met Ser Leu Pro Ala Glu Ser Leu Ile Ala Tyr Thr Leu Asp Lys
Met Asn Ala Arg Leu Ala Ala Ser Pro Arg Arg Asp Asp Gly Arg Ile
                        55
Arg Asn Gly Leu Leu Phe Thr Gly Asn Val His Asp Ser Ile Pro Arg
Arg Leu Leu Leu Asp Thr Arg Leu Ser Pro Leu Asp Lys Met Gly Trp
               85
                                    90
Met Met Ile Arg Leu Tyr Ala Gln Asn Asn Glu Gly Ala Val Phe Pro
            100
                                105
Ser Tyr Asp Glu Leu Gln Leu Gln Leu Ala Ser Pro Gly Lys Gly Lys
                            120
Ala Ser Arg Glu Thr Val Ser Arg Val Leu Leu Met Leu Arg Ile Thr
                        135
Gly Trp Leu Ser Leu Cys Lys Arg Val Arg Asp Asp Lys Gly Arg Val
                    150
                                        155
Arg Gly Asn Ile Tyr Ala Gln His Asp Glu Pro Leu Thr Phe Ser Asp
                                    170
Ala Glu Met Leu Asp Pro Arg Phe Leu Asp Val Val Ala Asp Ala Cys
                                185
Leu Ser Lys Asn Arg Thr Ile Ser Gln Asn Ala Arg Glu Val Leu Asp
       195
                            .200
Asp Ile Lys Asn Asp Pro Thr Met Arg His Tyr Arg Ser His Leu Ala
                                            220
                        215
Leu Ile Glu Ser Arg Leu Asp Ser Pro Gln Ser Pro Ser Gln Met Ala
                    230
                                        235
Lys His His Arg Ile Pro Cys Pro Ala Pro Gly Ser Glu Thr Ala
                245
                                    250
Arg Leu His Tyr Glu Met Arg Ile Arg Thr Asp Cys
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<210> 6395 <211> 285

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<212> PRT

<213> Enterobacter cloacae

<400> 6395

Thr Gly Ser Arg Gly Leu Pro Gly Glu Lys Trp Val Trp Leu Tyr Leu 10 Trp Arg Arg Leu Pro Arg Val Arg Gln Gln Ile Gln Pro Val Gln Gln Pro Pro His Arg Arg Asp Gly Cys Asp Gln Gln Asn Gly Ala Ala Pro Met Ile Glu Leu Val Ile Val Ser Arg Leu Leu Glu Tyr Pro Asp Ala Ala Leu Val Gln His Gln Gln Glu Leu Phe Asp Ala Leu Ala Ser Ser Glu Asn Leu Asp Lys Glu Asp Ala Gln Lys Leu Gly Val Phe Leu Arg Asp Leu Leu Ala Arg Asp Leu Leu Asp Ala Gln Ala Asp Tyr Ser Gln 100 105 Leu Phe Asp Arg Gly Arg Ala Thr Ser Leu Leu Phe Glu His Val 120 125 His Gly Glu Ser Arg Asp Arg Gly Gln Ala Met Val Asp Leu Met Ala 135 140 Gln Tyr Glu Gln His Gly Leu Gln Leu Asp Ser Arg Glu Leu Pro Asp 150 155 His Leu Pro Leu Tyr Leu Glu Tyr Leu Ala Gln Leu Pro Lys Glu Glu 170 165 Ala Leu Gly Gly Leu Gln Asp Ile Ala Pro Ile Leu Ala Leu Leu Gly 185 180 Ala Arg Leu Gln Gln Arg Glu Ser Ser Tyr Ala Val Leu Phe Asp Leu 200 Leu Val Lys Leu Ala Asn Ala Ser Val Asp Ser Gln Lys Val Ala Glu 215 220 Lys Ile Ala Asp Glu Ala Arg Asp Asp Thr Pro Gln Ala Leu Asp Ala 230 235 Val Trp Glu Glu Glu Gln Val Lys Phe Phe Ala Asp Gln Ser Cys Gly 250 245 Glu Ser Glu Ile Ser Ala His Gln Arg Arg Phe Ala Gly Ala Val Ala 265 Pro Gln Tyr Leu Asn Ile Ser Asn Gly Gly Gln His 285 275 280

<210> 6396 <211> 519

<212> PRT

<213> Enterobacter cloacae

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Asn Trp Lys Ser Gly Lys Ser Glu Lys Cys Ile Phe Cys Tyr Pro Arg 245 250 Ile Glu Ala Gly Met Pro Thr Val Cys Ser Glu Ser Cys Val Gly Arg 260 265 Ile Arg Tyr Leu Gly Val Leu Leu Tyr Asp Ala Asp Ala Ile Glu Asn 280 Ala Ala Ser Thr Glu Asn Glu Lys Asp Leu Tyr Gln Arg Gln Leu Asp 295 300 Val Phe Leu Asp Pro Asn Asp Pro Lys Val Ile Glu Gln Ala Leu Lys 310 315 Asp Gly Ile Pro Gln Ser Val Ile Asp Ala Ala Gln Gln Ser Pro Val 325 330 Tyr Lys Met Ala Met Asp Trp Lys Leu Ala Leu Pro Leu His Pro Glu 340 345 Tyr Arg Thr Leu Pro Met Val Trp Tyr Val Pro Pro Leu Ser Pro Ile 360 365 Gln Ser Ala Ala Asp Ala Gly Glu Leu Gly Ser Asn Gly Ile Leu Pro . 375 380 Asp Val Glu Ser Leu Arg Ile Pro Val Gln Tyr Leu Ala Asn Leu Leu 395 390 Thr Ala Gly Asp Thr Gln Pro Val Leu Leu Ala Leu Lys Arg Met Leu 405 410 Ala Met Arg His Phe Lys Arg Ala Glu Thr Val Asp Gly Val Asn Asp 420 425 430 Thr Arg Ala Leu Glu Glu Val Gly Leu Thr Glu Ala Gln Ala Gln Glu 440 435 Met Tyr Arg Tyr Leu Ala Ile Ala Asn Tyr Glu Asp Arg Phe Val Val 450 455 460 Pro Ser Ser His Arg Glu Leu Ala Arg Glu Ala Phe Pro Glu Lys Ser 470 475 Gly Cys Gly Phe Thr Phe Gly Asp Gly Cys His Gly Ser Asp Ser Lys 485 490 Phe Asn Leu Phe Asn Ser Arg Arg Ile Asp Ala Met Asp Val Thr Ser 500 505 Lys Thr Glu Pro His Gln 515

<210> 6397

<211> 1280

<212> PRT

<213> Enterobacter cloacae

<220>

<221>UNSURE

<222>(516)

<400> 6397

Ser Leu Ser Ile Leu Thr Ile Phe His Ser Val Thr Phe Ala Ala Asn 10 Gln Gln Cys Arg Phe Arg Glu Pro Gln Ala Pro His Arg Arg Tyr Pro 25 Met Ser Lys Phe Leu Asp Arg Phe Arg Tyr Phe Lys Gln Lys Gly Glu 40 Thr Phe Ala Asp Gly His Gly Gln Val Leu Asp Thr Asn Arg Asp Trp 55 Glu Asp Gly Tyr Arg Gln Arg Trp Gln His Asp Lys Val Val Arg Ser 70 75 Thr His Gly Val Asn Cys Thr Gly Ser Cys Ser Trp Lys Ile Phe Val 90 Lys Asn Gly Leu Val Thr Trp Glu Met Gln Gln Thr Asp Tyr Pro Arg 105

Thr Arg Pro Asp Met Pro Asn His Glu Pro Arg Gly Cys Pro Arg Gly 120 Ala Ser Tyr Ser Trp Tyr Leu Tyr Ser Ala Asn Arg Leu Lys Tyr Pro 135 140 Leu Met Arg Lys Arg Leu Met Lys Met Trp Arg Glu Ala Lys Val Gln 150 155 His Ser Asp Pro Val Asp Ala Trp Ala Ser Ile Ile Glu Asp Ala Asp 165 170 Lys Ala Lys Ser Phe Lys Gln Ala Arg Gly Arg Gly Phe Val Arg 185 Ser Ser Trp Lys Glu Val Asn Glu Leu Ile Ala Ala Ser Asn Val Tyr 200 Thr Val Lys Thr Tyr Gly Pro Asp Arg Val Ala Gly Phe Ser Pro Ile 215 220 Pro Ala Met Ser Met Val Ser Tyr Ala Ser Gly Ala Arg Tyr Leu Ser 230 235 Leu Ile Gly Gly Thr Cys Leu Ser Phe Tyr Asp Trp Tyr Cys Asp Leu 250 245 Pro Pro Ala Ser Pro Gln Thr Trp Gly Glu Gln Thr Asp Val Pro Glu 265 260 Ser Ala Asp Trp Tyr Asn Ser Ser Tyr Ile Ile Ala Trp Gly Ser Asn 275 280 285 Val Pro Gln Thr Arg Thr Pro Asp Ala His Phe Phe Thr Glu Val Arg 295 300 Tyr Lys Gly Thr Lys Thr Val Ala Val Thr Pro Asp Tyr Ala Glu Ile 310 315 Ala Lys Leu Cys Asp Leu Trp Leu Ala Pro Lys Gln Gly Thr Asp Ala 325 330 Ala Met Ala Leu Ala Met Gly His Val Met Leu Arg Glu Phe His Leu 345 340 Asp Lys Pro Ser Gln Tyr Phe Thr Asp Tyr Val Arg Arg Tyr Thr Asp 360 365 Met Pro Met Leu Val Met Leu Glu Glu Arg Asp Gly Tyr Tyr Ala 'Ala 375 380 Gly Arg Met Leu Arg Ala Ala Asp Leu Val Asp Ala Leu Gly Gln Glu 390 395 Asn Asn Pro Glu Trp Lys Thr Val Ala Cys Asn Ser Asn Gly Glu Leu 405 410 Val Ala Pro Asn Gly Ser Ile Gly Phe Arg Trp Gly Glu Lys Gly Lys 425 Trp Asn Leu Glu Gln Arg Asn Gly Thr Thr Gly Glu Glu Thr Glu Leu 440 Arg Leu Ser Met Leu Gly Ser Gln Asp Glu Ile Ala Asp Val Gly Phe 455 Pro Tyr Phe Gly Asn Glu Gly Ser Glu His Phe Asn Lys Val Glu Leu 470 475 Gln Asn Val Leu Met His Lys Leu Pro Val Lys Arg Leu Gln Leu Ala 485 490 Asp Gly Ser Thr Ala Leu Val Thr Thr Ala Tyr Asp Leu Thr Met Ala 500 505 510 Asn Tyr Gly Xaa Glu Arg Gly Leu Asn Asp Glu Asn Cys Ala Thr Ser 520 525 Tyr Asp Asp Val Lys Ala Tyr Thr Pro Ala Trp Ala Glu Gln Ile Thr 535 540 Gly Val Pro Arg Ala Gln Ile Thr Arg Ile Ala Arg Glu Phe Ala Glu 550 555 Asn Ala Asp Lys Thr His Gly Arg Ser Met Ile Ile Val Gly Ala Gly 565 570 Leu Asn His Trp Tyr His Leu Asp Met Asn Tyr Arg Gly Leu Ile Asn 585 Met Leu Ile Phe Cys Gly Cys Val Gly Gln Ser Gly Gly Gly Trp Ala

595 600 605 His Tyr Val Gly Gln Glu Lys Leu Arg Pro Gln Thr Gly Trp Gln Pro 615 620 Leu Ala Phe Ala Leu Asp Trp Gln Arg Pro Ala Arg His Met Asn Ser 630 635 Thr Ser Tyr Phe Tyr Asn His Ser Ser Gln Trp Arg Tyr Glu Thr Val 645 650 Thr Ala Gln Glu Leu Leu Ser Pro Met Ala Asp Lys Ser Arg Tyr Ser 665 670 Gly His Leu Ile Asp Phe Asn Val Arg Ala Glu Arg Met Gly Trp Leu 680 Pro Ser Ala Pro Gln Leu Gly Thr Asn Pro Leu Arg Ile Ala Glu Ala 700 695 Ala Lys Lys Ala Gly Met Ser Pro Val Asp Tyr Thr Val Lys Ser Leu 715 710 Lys Asp Gly Ser Ile Arg Phe Ala Ala Glu Gln Pro Glu Asn Gly Lys 725 730 Asn His Pro Arg Asn Leu Phe Ile Trp Arg Ser Asn Leu Leu Gly Ser 745 Ser Gly Lys Gly His Glu Tyr Met Leu Lys Tyr Leu Leu Gly Thr Glu 755 760 Asn Gly Ile Gln Gly Lys Asp Leu Gly Lys Gln Gly Val Lys Pro 775 Glu Glu Val Glu Trp Lys Asp Asn Gly Leu Asp Gly Lys Leu Asp Leu 790 795 Val Val Thr Leu Asp Phe Arg Leu Ser Ser Thr Cys, Leu Tyr Ser Asp 805 810 Ile Val Leu Pro Thr Ala Thr Trp Tyr Glu Lys Asp Asp Met Asn Thr 825 820 Ser Asp Met His Pro Phe Ile His Pro Leu Ser Ala Ala Val Asp Pro 840 835 Ala Trp Glu Ser Lys Ser Asp Trp Glu Ile Tyr Lys Asp Ile Ala Lys 860 855 Lys Phe Ser Glu Val Cys Val Gly His Leu Gly Lys Glu Thr Asp Val 870 875 Val Thr Leu Pro Ile Gln His Asp Ser Ala Ala Glu Leu Ala Gln Pro 885 890 Leu Asp Val Lys Asp Trp Lys Lys Gly Glu Cys Asp Leu Ile Pro Gly 905 900 910 Val Thr Ala Pro His Ile Ile Pro Val Glu Arg Asp Tyr Pro Ala Thr 925 920 Tyr Glu Arg Phe Thr Ser Ile Gly Pro Leu Met Glu Lys Ile Gly Asn 935 940 Gly Gly Lys Gly Ile Ala Trp Asn Thr Gln Ser Glu Met Asp Leu Leu 950 955 Arg Lys Leu Asn Tyr Thr Lys Ala Asp Gly Pro Ala Lys Gly Gln Pro 965 970 Met Leu Asn Thr Ala Ile Asp Ala Ala Glu Met Ile Leu Thr Leu Ala 985 990 Pro Glu Thr Asn Gly His Val Ala Val Lys Ala Trp Ala Ala Leu Ser 1000 Glu Phe Thr Gly Arg Asp His Thr His Leu Ala Lys Asn Lys Glu Glu 1015 1020 Glu Lys Ile Arg Phe Arg Asp Ile Gln Ala Gln Pro Arg Lys Ile Ile 1030 1035 Ser Ser Pro Thr Trp Ser Gly Leu Glu Asp Glu His Val Ser Tyr Asn 1045 1050 Ala Gly Tyr Thr Asn Val His Glu Leu Ile Pro Trp Arg Thr Leu Ser 1070 1065 1060 Gly Arg Gln Ser Leu Tyr Gln Asp His Gln Trp Met Arg Asp Phe Gly 1080 1085

Glu Ser Leu Leu Val Tyr Arg Pro Pro Ile Asp Thr Arg Ser Val Lys 1095 1100 Ala Val Met Gly Ala Lys Ser Asn Gly Asn Pro Glu Lys Ala Leu Asn 1110 1115 Phe Leu Thr Pro His Gln Lys Trp Gly Ile His Ser Thr Tyr Ser Asp 1130 1125 Asn Leu Leu Met Leu Thr Leu Ser Arg Gly Gly Pro Ile Val Trp Met 1145 1140 Ser Glu Ala Asp Ala Lys Asp Leu Gly Ile Glu Asp Asn Asp Trp Ile 1160 1165 1155 Glu Val Phe Asn Ser Asn Gly Ala Leu Thr Ala Arg Ala Val Val Ser 1180 1175 1170 Gln Arg Val Pro Ala Gly Met Thr Met Met Tyr His Ala Gln Glu Arg 1195 1190 Ile Val Asn Leu Pro Gly Ser Glu Ile Thr Glu Gln Arg Gly Gly Ile 1210 1215 1205 His Asn Ser Val Thr Arg Ile Thr Pro Lys Pro Thr His Met Ile Gly 1230 1220 1225 Gly Tyr Ala Gln Leu Ala Tyr Gly Phe Asn Tyr Tyr Gly Thr Val Gly 1245 1240 Ser Asn Arq Asp Glu Phe Val Val Val Arg Lys Met Lys Asn Ile Asn 1255 1260 Trp Leu Asp Gly Glu Gly Asn Asp Gln Val Gln Glu Ser Val Lys 1280 1270 1275 <210> 6398 <211> 91 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(69) <220> <221>UNSURE <222>(86) <220> <221>UNSURE <222>(87) <400> 6398 Arg Arg Thr Ala Leu Met His Phe Leu Asn Met Phe Phe Asp Ile - 5 10 Tyr Pro Tyr Ile Ala Gly Thr Val Phe Leu Val Gly Ser Trp Leu Arg 30 25 Tyr Asp Tyr Gly Gln Tyr Thr Trp Arg Ala Ala Ser Ser Gln Met Leu 45 40 Asp Arg Lys Gly Met Asn Leu Ala Ser Asn Leu Phe His Ile Gly Ile 55 60 Leu Gly Ile Phe Xaa Arg Ser Leu Pro Gly Ala Leu Thr Pro His Trp 75 70 Tyr Ser His Pro Ala Xaa Xaa Glu Leu Gln Ser <210> 6399 <211> 299 <212> PRT <213> Enterobacter cloacae

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<210> 6400 <211> 211

<212> PRT <213> Enterobacter cloacae

<400> 6400

120 125 Ile Glu Met Ala Ile Gly Ala Leu Lys Glu Ala Arg Ala Asp Tyr Ala 135 140 Ile Ser Ile Ser Gly Ile Ala Gly Pro Asp Gly Gly Ser Asp Val Lys 150 155 Pro Val Gly Thr Val Trp Phe Gly Phe Ala Thr Ser Lys Gly Glu Gly 170 Ile Thr Arg Arg Glu Cys Phe Ser Gly Asp Arg Glu Ser Val Arg Arg 185 Gln Ala Thr Glu Tyr Ala Leu Lys Thr Leu Trp Gln Gln Phe Leu Gln Asn Thr 210 <210> 6401 <211> 196 <212> PRT <213> Enterobacter cloacae <400> 6401 Leu Asp Phe Arg Ile Ile Met Ser Lys Ser Thr Ala Glu Ile Arg Gln 10 Ala Phe Leu Asp Phe Phe His Ser Lys Gly His Gln Val Val Ala Ser 20 25 Ser Ser Leu Val Pro Asn Asn Asp Pro Thr Leu Leu Phe Thr Asn Ala 40 Gly Met Asn Gln Phe Lys Asp Val Phe Leu Gly Leu Asp Lys Arg Asn 55 Tyr Ser Arg Ala Thr Thr Ser Gln Arg Cys Val Arg Ala Gly Gly Lys 70 75 80 His Asn Asp Leu Glu Asn Val Gly Tyr Thr Ala Arg His His Thr Phe 90 Phe Glu Met Leu Gly Asn Phe Ser Phe Gly Asp Tyr Phe Lys His Asp 105 Ala Ile Gln Tyr Ala Trp Glu Leu Leu Thr Gly Glu Asn Trp Phe Asn 120 Leu Pro Lys Glu Arg Leu Trp Val Thr Val Tyr Glu Thr Asp Asp Glu 135 Ala Phe Asp Ile Trp Glu Lys Glu Val Gly Ile Pro Arg Glu Arg Ile Ile Arg Ile Gly Asp Asn Lys Gly Ala Pro Tyr Ala Ser Asp Asn Phe 170 Trp Gln Met Gly Asp Thr Gly Pro Val Phe Tyr His Gly Ala Gly Arg Ile Arg Ala 195 <210> 6402 <211> 253 <212> PRT <213> Enterobacter cloacae <400> 6402 Asp Ile His Val Pro Val Phe Ser Leu Ile Leu Ala Ser Ala Ala Ala 10 Gly Ala Gly Ala His Ser Val Ser Arg Pro Gly Arg Ala Leu Gly Gly 25 Gly Val Ala Met Ile Val Met Asn Asp Leu Val Ala Gly Tyr Asp Arg 40 Gln Pro Val Thr Arg Ala Leu Ser Gly Val Ile Glu Arg Gly Ser Met

Thr Ala Ile Val Gly Ala Asn Gly Cys Gly Lys Ser Thr Leu Leu Lys 70 75 Thr Leu Ala Gly Phe Leu Pro Pro Val Ser Gly Thr Phe Arg Trp Gln 90 85 Gly Arg Arg Pro Val Val Gly Trp Leu Ala Gln Arg His Ala Leu Glu 105 100 Ala Gln Phe Pro Leu Thr Val Gln Asp Val Val Ser Met Gly Cys Trp 120 125 Pro Ala Ile Ser Leu Phe Ala Gly Phe Arg Arg Asp Ala Arg Met Arg 135 140 Ile Ala Gly Ala Leu Glu Arg Val Gly Leu Glu Ser Met Ala Phe Ser 155 150 Thr Ile Asp Glu Leu Ser Gly Gly Gln Phe Gln Arg Met Leu Phe Ala 165 170 Arg Val Leu Val Gln Gln Ala Pro Leu Val Met Leu Asp Glu Pro Phe 185 180 Thr Gly Val Asp Glu Ala Thr Cys Asn Val Leu Met Asp Leu Met Leu 200 205 195 Glu Met Tyr Met Gln Gly Gln Thr Leu Leu Ala Val Leu His Asp Ser 220 215 Glu Arg Val Ser Arg His Phe Pro Gln Thr Leu Arg Leu Asp Ala Asp 230 235 Thr Pro His Trp Lys Thr Glu Arg Val Arg Val Ala 245 ·

<210> 6403

<211> 172

<212> PRT

<213> Enterobacter cloacae

<400> 6403

Ile Asp Arg Phe Phe Met Ser Glu Pro Thr Ser Arg Arg Pro Ala Tyr 10 Ser Arg Leu Leu Asp Arg Ala Val Arg Ile Leu Ala Val Arg Asp His 25 Ser Glu Gln Glu Leu Arg Arg Lys Leu Ser Ala Pro Val Met Ser Lys 40 Asn Gly Pro Glu Asp Ile Asp Ala Thr Ala Glu Asp Tyr Asp Arg Val 55 Val Ala Trp Cys Tyr Glu His His Tyr Leu Asp Asp Gly Arg Phe Ala 70 75 Ala Arg Phe Leu Ala Ser Arg Gly Arg Lys Gly Tyr Gly Pro Ala Arg 90 Ile Arg Gln Glu Leu Asn Gln Lys Gly Val Ala Arg Glu Ser Ile Glu 105 Lys Ala Met Arg Glu Ser Glu Ile Asp Trp Cys Glu Leu Ala Arg Glu 120 Gln Ala Val Arg Lys Tyr Gly Glu Pro Leu Pro Arg Glu Phe Ser Glu 135 140 Lys Val Lys Ile Gln Arg Phe Leu Leu Tyr Arg Gly Phe Leu Met Glu 150 155 Asp Ile Gln Asp Ile Trp Arg Asn Phe Thr Asp 165

<210> 6404

<211> 304

<212> PRT

<213> Enterobacter cloacae

<400> 6404

Pro Ala Gly Ala Phe Leu Thr Gln Gly Glu Thr Met Lys Arg Thr Gly

10 Leu Ala Val Ala Leu Ala Leu Gly Met Met 'Thr His Gly Val Met Ala 25 Lys Thr Leu Asn Val Val Thr Ser Phe Ser Ile Leu Gly Asp Ile Thr 45 40 Gln Gln Val Gly Gly Asp Arg Val Lys Val Thr Thr Leu Val Gly Pro 55 Asp Gly Asp Pro His Thr Phe Glu Pro Ser Pro Lys Asp Ser Ala Ala 70 Leu Ser Lys Ala Asp Val Val Val Asn Gly Leu Gly Leu Glu Gly 8.5 Trp Leu Asp Arg Leu Val Lys Ala Ser Gly Phe Lys Gly Gln Leu Val 105 100 Val Ala Ser Asp Gly Val Lys Thr His Thr Leu Glu Glu Asp Gly Lys 120 Thr Val Thr Asp Pro His Ala Trp Asn Ser Ala Ala Asn Gly Ala Leu 135 140 Tyr Ala Gln Asn Ile Leu Ser Gly Leu Val Lys Ala Asp Pro Glu Asp 150 155 Thr Ala Ala Leu Glu Ala Thr Gly Lys Pro Tyr Ile Ala Gln Leu Ser 170 Gln Leu Asp Gly Trp Ala Lys Lys Arg Phe Ser Asp Ile Pro Gln Ala 185 190 Lys Arg Lys Val Leu Thr Ser His Asp Ala Phe Gly Tyr Phe Ser Arg 200 205 195 Ala Tyr Gly Val Thr Phe Met Ala Pro Gln Gly Leu Ser Ser Glu Ser 215 Glu Ala Ser Ala Ala Gln Val Ala Glu Ile Ile Asn Gln Ile Lys Ala 230 235 Asp Gly Val Lys Thr Trp Phe Met Glu Asn Gln Leu Asp Pro Arg Leu 245 250 Val Lys Gln Ile Ala Thr Ala Thr Gly Ala Gln Pro Gly Gly Glu Leu 265 Tyr Pro Glu Ala Leu Ser Ala Lys Gly Gly Val Ala Asp Thr Tyr Val 280 Lys Ala Phe Arg His Asn Val Asp Thr Leu Ala Asn Ser Met Lys

<210> 6405

<211> 365

<212> PRT

<213> Enterobacter cloacae

<400> 6405

 Ser
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 Ala
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 Pro
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 Met
 Thr
 Gly
 Val
 Ile
 Met
 Ala
 Ile
 Asp

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 Asn
 Lys
 Gln
 Lys
 Ala
 Leu
 Ala
 Ala
 Ala
 Ala
 Leu
 Gly
 Gln
 Ile
 Glu
 Lys
 Gly
 Lys
 Ile
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2606 135 140 Leu Ala Arg Ser Gly Ala Val Asp Val Ile Ile Val Asp Ser Val Ala 150 155 Ala Leu Thr Pro Lys Ala Glu Ile Glu Gly Glu Ile Gly Asp Ser His 165 170 Met Gly Leu Ala Ala Arq Met Met Ser Gln Ala Met Arq Lys Leu Ala 185 Gly Asn Leu Lys Gln Ser Asn Thr Leu Leu Ile Phe Ile Asn Gln Ile 200 Arg Met Lys Ile Gly Val Met Phe Gly Asn Pro Glu Thr Thr Thr Gly 215 Gly Asn Ala Leu Lys Phe Tyr Ala Ser Val Arg Leu Asp Ile Arg Arg 235 230 Ile Gly Ala Val Lys Glu Gly Asp Asn Val Val Gly Ser Glu Thr Arg 245 250 Val Lys Val Val Lys Asn Lys Ile Ala Ala Pro Phe Lys Gln Ala Glu 260 265 Phe Gln Ile Leu Tyr Gly Glu Gly Ile Asn Phe Leu Gly Glu Leu Val 275 280 285 Asp Leu Gly Val Lys Glu Lys Leu Ile Glu Lys Ala Gly Ala Trp Tyr 295 300 Ser Tyr Asn Gly Asp Lys Ile Gly Gln Gly Lys Ala Asn Ala Ile Ser 310 315 Trp Leu Lys Glu Asn Pro Ala Ala Ala Lys Glu Ile Glu Lys Lys Val 325 330 Arg Glu Leu Leu Asn Asn Gln Asp Ser Lys Pro Asp Phe Val Val 345 Asp Gly Ala Asp Ala Glu Glu Thr Asn Glu Asp Phe 360 <210> 6406 <211> 80 <212> PRT <213> Enterobacter cloacae <400> 6406 Pro Phe Leu Gly Phe Val Ala Arg Leu Val Arg Ser Ala Met Leu Val Leu Leu Cys Val Asp Phe Phe Arg Ser Ala Arg Ala Cys Gly Leu Pro 25 Gly Trp Phe Phe Val Leu Arg Phe Ala Phe Pro Phe Ala Leu Ile Pro 40 Ser Phe Ser Val Leu Gly Leu Ala Leu Gly Asp Leu Leu Phe Gly Ala 55 60 Val Leu Ser Glu Thr Val Phe Ala Trp Pro Gly Met Gly Ala Trp Val

<210> 6407 <211> 110

<212> PRT

<213> Enterobacter cloacae

<400> 6407

Phe Asn Phe Lys Val Asn Tyr Tyr Gly Gly Thr Met Ile His Ser Phe Lys Asp Arg Arg Leu Glu Lys Phe Phe Arg Asn Gly Lys Thr Thr Ala 25 Gly Ile Pro Ser Glu Ile Ile Asn Ala Ile Leu Cys Arg Leu Glu Thr 40 Leu Asp Asn Val Gln Ser Glu Arg Glu Leu Leu Ser Asn Ser Leu Arg Tyr Glu Arg Leu Arg Met Thr Ser Asn Arg Tyr Ser Ser Ile Arg Val 65 70 75 80

Asn Ser Lys Tyr Arg Leu Phe Phe Glu Trp Asn Asp Gly Ala His Asn 85 90 95

Val His Leu Ser Ala His Asp Tyr Lys Ser Leu Ile His 100 110

<210> 6408 <211> 420

<212> PRT

<213> Enterobacter cloacae

<400> 6408

Gly Trp Leu Met Ser Thr Ile Ser Thr Asp Leu Ile Ala Arg Ile Tyr 10 Ala Ala Ser Glu Leu Pro Leu Ser Asn Asp Glu Leu Tyr Arg Glu Val 25 Gln Arg Glu Thr Gly Met Ser Asp Ala Glu Leu His Glu Leu Lys Glu 40 Phe Gly Ser Asp Lys Thr Arg Thr Ser Gly Val Lys His Lys Val Arg 55 Trp Phe Gln Gln Thr Leu Arg Gln Ala Gly Val Ile Glu Arg Val Pro Glu Lys Arg Gly Val Trp Arg Tyr Ser Ser Lys Thr Lys Thr Asn Leu 90 His Glu Ser Trp Glu Lys Leu Cys Val Val Gly Phe Ser Thr Ser Leu 100 105 Gly Ala Ser Val Phe Gly Asn Ala Tyr Ala Phe Phe Ser Asn Ile Thr 115 120 Glu Gln Ile His Leu Cys Leu Thr Ser Pro Pro Tyr Leu Leu Arg Asn 135 140 Ser Arg Asp Tyr Gly His Gly Gly Gly Arg Gly Glu Gln Val Tyr Ile 150 155 Asp Trp Leu Leu Arg Ile Leu Glu Pro Ile Val Lys Gln Leu Val Pro 165 170 Gly Ala Ser Val Ala Leu Asn Ile Thr Gln Asp Ser Phe Asn Arg Gly 180 185 Arg Pro Ser Arg Ser Leu Tyr Leu Glu Arg Leu Thr Leu Ala Leu Cys 200 195 Asp Lys Leu Gly Leu Glu Leu Met Asp Arg Leu Gln Trp Val Asn Arg 210 215 220 Ser Lys Pro Pro Ser Pro Thr His Trp Ala Cys Lys Gln Arg Val Gln 230 235 Leu Cys Ser Ser Tyr Glu Pro Val Leu Trp Phe Thr Asn Asp Ala Ser 250 245 Lys Val Arg Ser Asn Asn Leu Arg Val Leu Gln Pro His Ser Glu Gln 270 260 265 His Leu Lys Leu Gln Ala Ala Gly Gly Glu Asn Arg Thr Thr Phe Tyr 275 280 Gly Asp Gly Ala Tyr Gln Leu Lys Ser Gly Ser Phe Gly Asn Lys Thr 295 300 Glu Gly Thr Ile Pro Lys Asn Thr Leu Phe Tyr Gly Asn Ser Cys Ala 310 315 Asp Thr Arg Phe Cys His Ser Ile Ala Arg Glu Leu Gly Phe Pro Leu 325 330 His Gly Ala Thr Ser Pro Thr Arg Leu Ala Ala Phe Leu Ile Glu Phe 345 Leu Thr Glu Pro Gly Asp Leu Val Val Asp Pro Phe Ala Gly Leu His 360 365 Lys Val Pro Ile Ala Ala Glu Arg Leu Gly Arg Arg Trp Leu Ala Thr 375

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Asp Lys Ile Met Glu Trp Leu Ala Ile Ser Arg Asn Leu Phe Thr Ala
385
                    390
                                        395
Ala Pro Gly Tyr Lys Ser Asn Pro Met Leu Asp Glu Leu Ala Glu Leu
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                                    410
Tyr Arg Ala
            420
<210> 6409
<211> 272
<212> PRT
<213> Enterobacter cloacae
<400> 6409
Cys Gly Thr Ile Lys Asn Gly Gly Trp Pro Val Ser Tyr Ser Ile Lys
                                    10
Ile Gly Lys His Ser Ile Glu Leu Ala Gly Tyr Ala Gly Lys Val Val
            20
                                25
                                                     30
Ala Pro Asn Thr Gln Met Ala Ala Leu Phe Arg Gly Met Ala Gly Glu
                            40
Leu Thr Asn Leu Arg Thr Thr Ala Gln Gln Ala Glu Ala Glu Ala Asp
Leu Leu Asp Val Ile Arg Asn Asp Pro Asp Leu Asn Glu Gln Ala Lys
                    70
                                        75
Asn Arg Arg Ala Gly Glu Ala Arg Asn Pro Asp Thr Leu Lys Asp Phe
                85
                                    90
Thr Arq Gly Val Ala Ala Val Ser Glu Gln Ala Ala Asn Ile Leu Asp
            100
                                105
Tyr Leu Lys Asn Arg Leu Ala Pro Val Asn Pro Leu Ala Pro Asp Asp
                            120
Val Gln Gly Phe Met Arg Asp Ser Glu Met Arg Gln Ala Phe Ala Arg
                        135
                                             140
Leu Asp Arg Arg Ser Gln Glu Lys Met Leu Ser Met His Ser Gly
                    150
                                        155
Lys His Gln Glu Leu Ala Asp Ala Leu Leu Arg Ala His Ala Val Cys
                                    170
Ser Gly Leu Asp Thr Glu Gln Leu Lys Arg Leu Gly Phe Ser Arg Ile
                                185
                                                     190
Ala Ser Glu Asn Gly Gln Val Ile Ser Ala Val Ala Asp Leu Val Asp
        195
                            200
                                                 205
Ala Val Arg Lys Asp Val Thr Gln Ile Thr Ala Val Arg Thr Trp Tyr
                        215
                                            220
Asn Asn Leu Val Tyr Gly Lys Asn Asp Asp Pro Ser Glu Val Leu Pro
                    230
                                        235
Arg Met Thr Gly Leu Asp Gln Leu Ser Glu His Val Ser Ala Met Leu
                245
                                    250
Lys Gly Ser Gln Arg Gln Thr His Ser Glu Glu Lys Gln Ala Ala
                                265
<210> 6410
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6410
Pro Gly Lys Thr Asn Met Thr Ile Lys Asn Ala Arg Ala Gly Gln Gly
                                    10
Phe Ala His Pro Glu Asn Ser Ser Asp Asp Ile Ser Val Ile Lys Phe
Glu Asp Ala Lys Val Arg Ile Val Lys Ile Leu Gly Glu Pro Trp Phe
                            40
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Val Ala Ala Asp Val Cys Ala Ala Leu Glu Ile Ala Asp His Lys Val

55 Ala Leu Arg Arg Leu Asp Asp Glu Lys Gly Glu Cys Leu Ile Pro 70 75 Thr Pro Gly Gly Lys Gln Thr Met Arg Thr Val Cys Glu Ser Gly Phe 90 85 Tyr Lys Leu Ile Ser Arg Ser Arg Lys Ala Ile Thr Pro Gly Thr Phe 105 Ala His His Phe Ser Asn Trp Val Phe Arg Glu Val Ile Pro Ser Ile 120 125 Arg Lys Thr Gly Phe Tyr Gly Val Pro Phe Val Phe Leu Asn Asp Phe 135 Ser Arg Arg Met Ala Ala Tyr Gln Gln Glu Ala Ser Lys Arg Gly Tyr 150 155 Lys Leu Gln Gln Cys Lys Gly Val Lys Glu Ala Leu Glu Arg Glu Glu 165 170 Ile Gln Leu Trp Leu Lys Tyr Gln Pro Glu Leu Leu Lys Glu Asn Gly 180 185 Asp Glu 195

<210> 6411

<211> 627 <212> PRT

<213> Enterobacter cloacae

<400> 6411 Ile Cys Phe Phe Arg Ala Gly Arg Arg Arg Lys Arg Tyr Arg Ser Asp Tyr Ala Gly Thr Gly His Arg Thr Asn Ser Gly Tyr Ala Gly Asn His 25 Gln Gly Ala Arg Glu Gln Lys Met Lys Asn Ala Pro Asn Leu Lys Lys 40 Gln Pro Ala Asp Leu Met Glu Glu Ser Ile Ile Phe Ala Gly Ala Asp 55 Ala Trp Thr Phe Ala Lys Ala Trp Gln Glu Met Asn Pro Ile Gly Asp 70 75 Thr Val Pro Pro Val Val Leu Asp Lys Gln Leu Ala Glu Leu Glu 90 Asn Ile Arg Ile Val Asp Asp Gly Arg Leu Tyr Ala Arg Val Cys Arg 105 Gly Gly His Leu Thr Glu Arg Gln Ile Thr Ile Leu Ala Thr Lys Leu 120 Ala Val Ala Gly Val Glu Arg Ala Gln Phe Tyr Ser Glu Gly Tyr Gln 135 140 Leu Leu Glu Asp Trp Thr Pro Gln Leu Pro Arg Leu Lys Ala Asp Ala 150 155 Gln Ala Gly Lys Ser Met Val Ile Gly Lys Pro Leu Thr Asp Val Asn 165 170 Leu Arg Asp Leu Ala Asp Asn Glu Lys Ala Leu Ile Leu Ala Ala Arg 185 180 Tyr Thr Gly Ile Ala Ile Asn Glu Asn Asn Glu Gly Val Tyr Val Tyr 200 205 Arg Ala Gly Ile Trp Glu Lys Thr Ser Leu Leu Glu Leu Ser Arg Glu 215 220 Met Val Ala Ile Tyr Asn Glu Asn Lys Thr Asn Phe Ser Lys Arg Ala 230 235 Ile Asn Asn Val Ile Asp Ala Leu Lys Ile Val Ile Pro Val Met Gly 250 Glu Pro Arg Arg Ser Leu Ile Pro Phe Ala Asn Gly Val Tyr Asp Met 265 Glu Thr Gly Val Phe Ser Glu His Ser Gln Asp Asn Trp Leu Thr Asn

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280
                                                285
His Asn Gly Val Ser Tyr Thr Pro Ala Val Pro Gly Glu Asn Leu Arg
                       295
                                           300
Asp His Ala Pro Asn Phe His Lys Trp Leu Ser Tyr Ala Ser Asp Arg
                                       315
                    310
Asp Ala Ile Lys Met Gln Arg Ile Ala Ala Leu Phe Met Val Leu
               325
                                   330
Ala Asn Arg Tyr Asp Trp Gln Leu Phe Leu Glu Ile Thr Gly Glu Gly
            340
                                345
Gly Ser Gly Lys Ser Val Phe Thr His Ile Ala Thr Met Leu Ala Gly
                            360
Ala His Asn Thr Ala Ser Gly Asn Met Ala Ala Leu Asp Ser Ala Arg
                        375
Gly Arg Ala Gln Phe Val Gly Lys Ser Met Ile Thr Leu Pro Asp Gln
                    390
                                        395
Pro Lys Tyr Ser Gly Glu Gly Thr Gly Ile Lys Ala Ile Thr Gly Gly
                405
                                    410
Asp Ala Val Glu Ile Asp Pro Lys His Glu His Gln Tyr Thr Ala Val
                                425
                                                    430
            420
Leu Arg Ala Val Val Ala Thr Asn Asn Thr Pro Met Ile Phe Thr
                            440
                                                445
Glu Arg Ala Gly Gly Val Ser Arg Arg Arg Val Ile Phe Gln Phe Asn
                        455
                                            460
Arg Arg Val Ser Glu Glu Asp Lys Asp Pro Asp Leu Ala Glu Lys Ile
                    470
                                        475
Ser Ala Glu Ile Pro Val Val Val Arg Arg Leu Leu Ala Asn Phe Ala
                485
                                    490
Asn Pro Glu Lys Ala Arg Ala Leu Leu Glu Gln Arg Asn Ser Glu
                                505
Glu Ala Leu Glu Val Lys Gln Lys Thr Asp Pro Leu Tyr Ala Phe Cys
                            520
                                                525
Ala His Leu Glu Arg Leu Ala Asp Cys Ala Gly Met Met Val Gly Asn
                        535
                                            540
Arg Asn Pro Pro His Tyr Pro Arg Ile Tyr Leu Tyr His Ala Tyr Leu
                    550
                                        555
Ala Phe Leu Glu Ala Asn Gly Phe Asp Lys Pro Leu Thr Leu Asn Lys
                                    570
Phe Ala Glu Gly Met Glu Ser Ala Met Arg Glu Phe Asn His Glu Tyr
                                585
Arg Lys Glu Arg Arg Ala Arg Gly Met Val Thr Asn Val Glu Leu Ser
                            600
Glu Ser Ala Glu Asp Trp Leu Pro Gln Thr His Pro Val Ala Gly His
                        615
    610
Lys Glu
625
<210> 6412
<211> 131
<212> PRT
<213> Enterobacter cloacae
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Lys Thr Gln Tyr Leu Phe Phe Glu Asp Tyr Ala Leu Ile Asp Leu Trp
                                    10
Leu Lys Ser Lys Arg Phe Phe Phe Glu Glu Lys Leu Leu Phe Tyr Tyr
                                25
Leu Ser Arg Leu Lys Asn Arg Leu Phe Thr Leu Ser Ser Ser Thr Arg
Val Tyr Leu Ser Ala Phe Arg Asn Lys Gly Val Asn Met Ser Lys Ala
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Leu Ile Arg Leu Pro Glu Val Gln Arg Arg Thr Gly Tyr Ser Lys Ala

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70
                                        75
Trp Ile Tyr Arg Leu Leu Lys Glu Arg Lys Phe Pro Gln Ser Val Lys
                85
                                    90
Ile Gly Ser Arg Ser Ile Ala Phe Val Glu Ser Glu Ile Asp Ala Trp
                                105
Ile Thr Gln Arg Ile Glu Glu Arg Asp Ala Leu Leu Val Arg Arg Pro
Gln Leu
    130
<210> 6413
<211> 325
<212> PRT
<213> Enterobacter cloacae
<400> 6413
Pro Leu Tyr Lys Val Tyr Phe Gly Asp Phe His Cys Phe Glu Pro Val
Met Lys Leu Ile Arg Gly Ile His Asn Leu Ser Gln Ala Pro His Gly
Cys Val Leu Thr Ile Gly Asn Phe Asp Gly Val His Arg Gly His Gln
Ala Leu Leu Gln Gly Leu Arg Lys Glu Gly Glu Ala Arg Gly Leu Pro
Val Val Met Ile Phe Glu Pro Gln Pro Leu Glu Leu Phe Ala Gly
Glu Lys Ser Pro Ala Arg Leu Thr Arg Leu Arg Glu Lys Leu Arg Tyr
                                    90
Leu Ala Glu Ser Gly Val Asp Tyr Val Leu Cys Val Arg Phe Asp Arg
                                105
Arg Phe Ala Ala Leu Thr Ala Gln Asn Phe Val Ser Asp Leu Leu Val
                            120
Arg Gln Leu Gly Val Gln Phe Leu Ala Val Gly Asp Asp Phe Arg Phe
                        135
Gly Ala Gly Arg Gln Gly Asp Phe Leu Leu Gln Lys Ala Gly Leu
                    150
                                        155
Glu Tyr Gly Phe Asp Val Thr Ser Thr Met Thr Phe Cys Glu Gly Gly
                165
                                    170
Val Arg Val Ser Ser Thr Ala Val Arg Gln Ala Leu Ala Asn Asp Glu
            180
                                185
Leu Asp Thr Ala Glu Thr Leu Leu Gly His Pro Phe Thr Ile Ser Gly
                            200
        195
Arg Val Val His Gly Asp Ala Leu Gly Arg Thr Ile Gly Phe Pro Thr
                        215
                                            220
Ala Asn Ile Pro Leu Arg Arg Gln Val Ser Pro Val Lys Gly Val Tyr
                    230
                                        235
Ala Val Glu Val Ala Gly Leu Gly Glu Lys Pro Phe Tyr Gly Val Ala
                245
                                    250
Asn Ile Gly Thr Arg Pro Thr Val Ala Gly Val Arg Gln Gln Leu Glu
            260
                                265
                                                    270
Val His Leu Leu Asp Val Val Met Asp Leu Tyr Gly Arg His Ile Asp
                            280
                                                285
Val Ile Leu His Lys Lys Ile Arg Asn Glu Gln Arg Phe Ala Ser Leu
                       295
                                            300
Asp Glu Leu Lys Ala Gln Ile Ala Arg Asp Glu Leu Thr Ala Arg Glu
Phe Phe Gly Leu
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<212> PRT <213> Enterobacter cloacae

<400> 6414 Asn Arg Leu Asn Cys Leu Arg Asp Lys Tyr Gly Thr Glu Asn Leu Met Ser Asp Tyr Lys Ser Thr Leu Asn Leu Pro Glu Thr Gly Phe Pro Met 25 20 Arg Gly Asp Leu Ala Lys Arg Glu Pro Gly Met Leu Ala Arg Trp Thr Asp Asp Asp Leu Tyr Gly Ile Ile Arg Ala Ala Lys Lys Gly Lys Lys Thr Phe Ile Leu His Asp Gly Pro Pro Tyr Ala Asn Gly Ser Ile His 70 Ile Gly His Ser Val Asn Lys Ile Leu Lys Asp Ile Ile Val Lys Ser 90 85 Lys Gly Leu Ala Gly Tyr Asp Ser Pro Tyr Val Pro Gly Trp Asp Cys 100 105 His Gly Leu Pro Ile Glu Leu Lys Val Glu Gln Glu Tyr Gly Lys Pro 120 125 Gly Glu Lys Phe Thr Ala Ala Glu Phe Arg Ala Lys Cys Arg Glu Tyr 135 140 Ala Ala Thr Gln Val Asp Gly Gln Arg Ala Asp Phe Ile Arg Leu Gly 150 155 Val Leu Gly Asp Trp Ser His Pro Tyr Leu Thr Met Asp Phe Lys Thr 165 170 Glu Ala Asn Ile Ile Arg Ala Leu Gly Lys Ile Ile Gly Asn Gly His 185 Leu His Lys Gly Ala Lys Pro Val His Trp Cys Val Asp Cys Arg Ser 200 205 195 Ala Leu Ala Glu Ala Glu Val Glu Tyr Tyr Asp Lys Thr Ser Pro Ser 220 215 Ile Asp Val Ala Phe Glu Ala Val Asp Gln Asp Ser Ile Lys Ala Lys 230 235 Phe Gly Leu Pro Gly Val Ser Gly Pro Val Ser Leu Val Ile Trp Thr 245 250 Thr Thr Pro Trp Thr Leu Pro Ala Asn Arg Ala Ile Ser Leu Ser Gly 265 Glu Phe Glu Tyr Ala Leu Val Gln Ile Asp Gly Arg Ala Val Ile Leu 280 Ala Lys Asp Leu Val Glu Ser Val Leu Lys Arg Ala Asn Ile Thr Asp 295 300 Tyr Thr Val Leu Gly Thr Val Lys Gly Asp Ala Leu Glu Leu Met Arg 310 315 Phe Lys His Pro Phe Leu Asp Phe Asp Val Pro Ala Ile Leu Gly Asp 325 330 His Val Thr Leu Asp Ala Gly Thr Gly Ala Val His Thr Ala Gly Gly 345 His Gly Pro Asp Asp Tyr Asn Ile Ser Leu Lys Tyr Gly Leu Glu Ile 360 Ala Asn Pro Val Gly Pro Asp Gly Ser Tyr Leu Pro Gly Thr Tyr Pro 375 380 Ala Leu Asp Gly Ile Asn Val Phe Lys Ala Asn Asp Ile Ile Val Asp 390 395 Met Leu Arg Thr Ser Gly Ala Leu Leu His Val Glu Lys Met Gln His 410 Ser Tyr Pro Cys Cys Trp Arg His Lys Thr Pro Ile Ile Phe Arg Ala 425 Thr Pro Gln Trp Phe Val Ser Met Asp Gln Lys Gly Leu Arg Glu Gln 440 Ser Leu Lys Glu Ile Lys Gly Val Gln Trp Ile Pro Asp Trp Gly Gln

Ala Arg Ile Glu Ser Met Val Ala Asn Arg Pro Asp Trp Cys Ile Ser Arg Gln Arg Thr Trp Gly Val Pro Met Ser Leu Phe Val His Lys Glu Thr Gln Glu Leu His Pro Asn Thr Leu Glu Leu Met Glu Glu Val Ala Lys Arg Val Glu Val Asp Gly Ile Gln Ala Trp Trp Asp Leu Asp Ala Arg Asp Ile Leu Gly Ala Asp Ala Asp Asn Tyr Glu Lys Val Pro Asp Thr Leu Asp Val Trp Phe Asp Ser Gly Ser Thr His Ala Ser Val Val Asp Val Arg Pro Glu Phe Ala Gly His Ala Ala Asp Met Tyr Leu Glu Gly Ser Asp Gln His Arg Gly Trp Phe Met Ser Ser Leu Met Ile Ser Thr Ala Met Lys Gly Lys Ala Pro Tyr Arg Gln Val Leu Thr His Gly Phe Thr Val Asp Gly Gln Gly Arg Lys Met Ser Lys Ser Ile Gly Asn Thr Val Ser Pro Gln Asp Val Met Asn Lys Leu Gly Ala Asp Ile Leu Arg Leu Trp Val Ala Ser Thr Asp Tyr Thr Gly Glu Met Ala Val Ser Asp Glu Ile Leu Lys Arg Ala Ala Asp Ser Tyr Arg Arg Ile Arg Asn Thr Ala Arg Phe Leu Leu Ala Asn Leu Asn Gly Phe Asp Pro Val Lys Asp Met Val Lys Pro Glu Glu Met Val Val Leu Asp Arg Trp Ala Val Gly Cys Ala Lys Ala Ala Gln Glu Asp Ile Leu Lys Ala Tyr Glu Ser Tyr Asp Phe His Glu Val Val Gln Arg Leu Met Arg Phe Cys Ser Ile Glu Met Gly Ser Phe Tyr Leu Asp Ile Ile Lys Asp Arg Gln Tyr Thr Ala Lys Ala Asp Ser Val Ala Arg Arg Ser Cys Gln Ser Ala Leu Tyr His Ile Ala Glu Ala Leu Val Arg Trp Met Ala Pro Ile Met Ser Phe Thr Ala Asp Glu Ile Trp Gly Tyr Leu Pro Gly Asp Arg Glu Lys Tyr Val Phe Thr Gly Glu Trp Tyr Glu Gly Leu Phe Asp Leu Ser Ser Thr Glu Ala Met Asn Asp Ala Tyr Trp Asp Glu Leu Leu Lys Val Arg Gly Glu Val Asn Lys Val Ile Glu Gln Ala Arg Ala Asp Lys Lys Val Gly Gly Ser Leu Glu Ala Thr Val Thr Leu Tyr Ala Glu Pro Glu Leu Ala Ala Lys Leu Thr Ala Leu Gly Asp Glu Leu Arg Phe Val Leu Leu Thr Ser Gly Ala Lys Val Ala Asp Tyr Ala Glu Ala Ser Ala Asp Ala Gln Gln Ser Glu Leu Leu Lys Gly Leu Lys Val Ala Leu Ser Lys Ala Asp Gly Glu Lys Cys Pro Arg Cys Trp His Tyr Thr Thr Asp Val Gly Gln Val Ala Glu His Ala Asp Ile Cys Gly Arg Cys Val Ser Asn Val Ala 

Gly Asp Gly Glu Lys Arg Lys Phe Ala 950 <210> 6415

<211> 183 <212> PRT

<213> Enterobacter cloacae

<400> 6415

Arg Val Ala Ile Pro Ala Tyr Arg Ile Cys Gly Pro Arg Arg Pro Gly 10 Lys Arg Ser Ala Thr Gly Gln Gln Val Thr Gln Asn Lys Arg Ala Ile 25 Cys Met Ser Lys Ser Val Gln Ser Asn Ser Ala Val Leu Val His Phe 40 Thr Leu Lys Leu Asp Asp Gly Ser Thr Ala Glu Ser Thr Arg Asn Asn 55 Gly Lys Pro Ala Leu Phe Arg Leu Gly Asp Thr Ser Leu Ser Glu Gly 70 75 Leu Glu Gln Gln Leu Leu Gly Leu Lys Glu Gly Glu Lys Lys Ala Phe 90 8.5 Ser Leu Glu Pro Asp Ala Ala Phe Gly Val Pro Ser Pro Asp Leu Ile 105 100 110 Gln Tyr Phe Ser Arg Arg Glu Phe Met Asp Ala Gly Glu Pro Glu Ile 120 115 Gly Ala Ile Met Leu Phe Thr Ala Met Asp Gly Ser Glu Met Pro Gly 135 140 Val Ile Arg Glu Ile Asn Gly Asp Ser Ile Thr Val Asp Phe Asn His 150 155 Pro Leu Ala Gly Arg Thr Val His Phe Asp Val Glu Val Leu Glu Ile

170

165 Asp Pro Ala Leu Glu Ala \_ 180

<210> 6416 <211> 170 <212> PRT

<213> Enterobacter cloacae

<400> 6416

Val Cys Leu Met Ser Lys Thr Leu Cys Ser Thr Gly Leu Arg Trp Leu Trp Leu Val Val Val Leu Ile Ile Asp Leu Gly Ser Lys Phe Leu Ile Leu Gln Asn Phe Ala Leu Gly Asp Thr Val Pro Leu Phe Pro Ser Leu Asn Leu His Tyr Ala Arg Asn Tyr Gly Ala Ala Phe Ser Phe Leu Ala Asp Ser Gly Gly Trp Gln Arg Trp Phe Phe Ala Gly Ile Ala Ile 75 70 Gly Ile Cys Val Val Leu Ala Val Leu Met Tyr Arg Ser Lys Ala Thr 85 90 Gln Lys Leu Asn Asn Ile Ala Tyr Ala Leu Ile Ile Gly Gly Ala Leu 100 105 110 Gly Asn Leu Phe Asp Arg Leu Trp His Gly Phe Val Val Asp Met Ile 125 120 Asp Phe Tyr Val Gly Asp Trp His Phe Ala Thr Phe Asn Leu Ala Asp 135 140 Ser Ala Ile Cys Val Gly Ala Ala Leu Ile Val Leu Glu Gly Phe Leu

150 155

Pro Lys Pro Ala Ala Lys Glu Gln Ala

<210> 6417

<400> 6418

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<211> 329
<212> PRT
<213> Enterobacter cloacae
<400> 6417
Lys Cys Trp Arg Ser Ile Arg His Trp Arg Pro Glu Met Gln Ile Leu
Leu Ala Asn Pro Arg Gly Phe Cys Ala Gly Val Asp Arg Ala Ile Ser
                                25
Ile Val Glu Asn Ala Leu Glu Ile Tyr Gly Ala Pro Ile Tyr Val Arg
His Glu Val Val His Asn Arg Tyr Val Val Asp Ser Leu Arg Glu Arg
Gly Ala Ile Phe Ile Glu Gln Ile Ser Glu Val Pro Asp Gly Ala Ile
                    70
Leu Ile Phe Ser Ala His Gly Val Ser Gln Ala Val Arg Asn Glu Ala
                                    90
Lys Asn Arg Asp Leu Thr Val Phe Asp Ala Thr Cys Pro Leu Val Thr
            100
                                105
Lys Val His Met Glu Val Ala Arg Ala Ser Arg Arg Gly Glu Glu Ser
                            120
Ile Leu Ile Gly His Ala Gly His Pro Glu Val Glu Gly Thr Met Gly
                        135
Gln Tyr Ser Asn Pro Glu Gly Gly Met Tyr Leu Val Glu Ser Pro Glu
                    150
                                        155
Asp Val Phe Thr Leu Asn Val Lys Asn Glu Ala Arg Leu Ser Phe Met
                165
                                    170
Thr Gln Thr Thr Leu Ser Val Asp Asp Thr Ser Asp Val Ile Asp Ala
                                185
Leu Arg Gln Arg Phe Pro Lys Ile Val Gly Pro Arg Lys Asp Asp Ile
                            200
                                                205
       195
Cys Tyr Ala Thr Thr Asn Arg Gln Glu Ala Val Arg Ala Leu Ala Glu
                        215
                                            220
Gln Ala Asp Val Val Leu Val Val Gly Ser Lys Asn Ser Ser Asn Ser
                    230
                                        235
Asn Arg Leu Ala Glu Leu Ala Gln Arg Met Gly Lys Ala Ala Phe Leu
                                    250
                245
Ile Asp Asp Ala Thr Asp Ile Gln Glu Ala Trp Val Lys Asn Ala Val
                                265
Cys Val Gly Val Thr Ala Gly Ala Ser Ala Pro Asp Ile Leu Val Gln
                            280
Asn Val Ile Ala Arg Leu Gln Glu Leu Gly Gly Glu Ala Val Pro
                        295
                                            300
Leu Glu Gly Arg Glu Glu Asn Ile Val Phe Glu Val Pro Lys Glu Leu
                   310
                                        315
Arg Ile Asp Ala Arg Glu Val Glu
                325
<210> 6418
<211> 128
<212> PRT
<213> Enterobacter cloacae
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Lys Met Thr Asn Arg Ala Ile Pro Leu Pro Asp Glu Gln Ala Thr Leu

Asp Leu Gly Lys Arg Val Ala Gln Ala Cys Gln Gly Ala Thr Val Ile

<210> 6419 <211> 456

<212> PRT

<213> Enterobacter cloacae

<400> 6419 Pro Val Glu Arg Arg Asp Asn Gly Met Ile Asn Arg Val Lys Gly Trp 10 Val Leu Ala Ala Thr Val Leu Leu Cys Ala Gln Val Gly Ala Ala Ser 20 25 Leu Ser Asp Ile Gln Val Ser Asn Gly Asp Ser Gln Ala Arg Ile Thr 35 Phe Ser Phe Met Gly Asp Pro Glu Tyr Ala Phe Ser Gln Ile Asp Ser Arg Ser Val Ala Leu Asp Ile Lys Gln Thr Gly Val Ile Gln Gly Leu 70 75 Pro Leu Gln Phe Ser Gly Asn Asn Leu Val Lys Ser Ile Arg Ser Gly 90 Thr Pro Lys Asp Thr Gln Ser Leu Arg Leu Val Val Asp Leu Thr Glu 100 105 Lys Gly Lys Thr Lys Ala Val Lys Gln Gln Asn Gly Ala Asn Tyr Thr 115 120 Val Val Phe Thr Ile Asn Ala Asp Val Pro Pro Pro Pro Pro Pro Pro 135 Ala Pro Val Val Ala Lys Arg Val Glu Ala Pro Val Tyr Thr Pro Arg 150 Pro Ser Glu Pro Ala Arg Asn Pro Phe Lys Ser Gln Asn Asp Arg Leu 170 Thr Ala Val Thr Ser Ser Asn Thr Val Thr Arg Pro Ala Val Ser Ala 185 Arg Arg Thr Pro Val Ser Gly Asp Lys Val Ile Ile Ala Ile Asp Ala 195 200 Gly His Gly Gly Gln Asp Pro Gly Ala Ile Gly Pro Gly Gly Thr Arg 215 220 Glu Lys Asn Val Thr Ile Ala Ile Ala Arg Lys Leu Arg Ala Leu Leu 230 235 Asn Asp Asp Pro Met Phe Lys Gly Val Met Thr Arg Asp Gly Asp Tyr 245 250 Phe Ile Ser Val Met Gly Arg Ser Asp Val Ala Arg Lys Gln Asn Ala 270 265 Asn Phe Leu Val Ser Ile His Ala Asp Ala Ala Pro Asn Arg Asn Ala 280 Thr Gly Ala Ser Val Trp Val Leu Ser Asn Arg Arg Ala Asn Ser Glu 295 300 Met Ala Asn Trp Leu Glu Glu His Glu Lys Gln Ser Glu Leu Leu Gly 310 315 Gly Ala Gly Asp Val Leu Ala Asn Ser Gln Ala Asp Pro Tyr Leu Ser 330

Gln Ala Val Leu Asp Leu Gln Phe Gly His Ser Gln Arg Val Gly Tyr 340 345 Asp Val Ala Thr Asn Val Leu Ser Gln Leu Gln Ser Ile Gly Ser Leu 360 His Lys Arg Arg Pro Glu His Ala Ser Leu Gly Val Leu Arg Ser Pro 375 380 Asp Ile Pro Ser Ile Leu Val Glu Thr Gly Phe Ile Ser Asn His Gly 390 395 Glu Glu Arg Leu Leu Gly Ser Asp Ser Tyr Gln Gln Gln Ile Ala Glu 410 Ala Ile Tyr Asn Gly Leu Arg Lys Tyr Phe Asp Ala His Pro Leu Gln 420 425 Ser Ala Pro Gln Gly Gly Ala Ala Gln Thr Ala Ser Ala Ala Leu Pro 440 435 Gly Glu Met Thr Ala Thr Asn 450

<210> 6420

<211> 606

<212> PRT

<213> Enterobacter cloacae

<400> 6420 Gly Glu Phe Met Pro Ile Gln Val Leu Pro Pro Gln Leu Ala Asn Gln 10 Ile Ala Ala Gly Glu Val Val Glu Arg Pro Ala Ser Val Val Lys Glu 20 Leu Val Glu Asn Ser Leu Asp Ala Gly Ala Thr Arg Ile Asp Ile Asp 40 Ile Glu Arg Gly Gly Ala Lys Leu Ile Arg Ile Arg Asp Asn Gly Cys 55 Gly Ile Lys Lys Asp Glu Leu Ala Leu Ala Leu Ala Arg His Ala Thr 70 75 Ser Lys Ile Ala Ser Leu Asp Asp Leu Glu Ala Ile Ile Ser Leu Gly 90 Phe Arg Gly Glu Ala Leu Ala Ser Ile Ser Ser Val Ser Arg Leu Thr 100 105 Leu Thr Ser Arg Thr Ala Asp Gln Glu Ala Trp Gln Ala Tyr Ala 120 Glu Gly Arg Asp Met Asp Val Thr Val Lys Pro Ala Ala His Pro Val 135 Gly Thr Thr Leu Glu Val Leu Asp Leu Phe Tyr Asn Thr Pro Ala Arg 150 155 Arg Lys Phe Met Arg Thr Glu Lys Thr Glu Phe Gly His Ile Asp Glu 170 Ile Ile Arg Arg Ile Ala Leu Ala Arg Phe Asp Val Thr Leu Asn Leu 180 185 190 Ser His Asn Gly Lys Val Met Arg Gln Tyr Arg Ala Val Ala Glu Gly 200 205 Gly Gln Lys Glu Arg Arg Leu Gly Ala Ile Cys Gly Thr Pro Phe Leu 215 220 Glu Lys Ala Leu Ala Ile Glu Trp Gln His Gly Asp Leu Ala Leu Arg 230 235 Gly Trp Val Ala Asp Pro Asn Ala Ser Ser Ala Ala Phe Ala Glu Ile 250 245 Gln Tyr Cys Tyr Val Asn Gly Arg Met Met Arg Asp Arg Leu Ile Asn 260 265 His Ala Ile Arg Gln Ala Cys Glu Asp Lys Leu Gly Ala Asp Gln Gln 280 285 Pro Ala Phe Val Leu Tyr Leu Glu Ile Asp Pro His Gln Val Asp Val 295 300

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Asn Val His Pro Ala Lys His Glu Val Arg Phe His Gln Ser Arg Leu
                    310
                                        315
Val His Asp Phe Ile Tyr Gln Gly Val Ala Ala Val Leu Gln Gln
                                    330
               325
Ala Glu Pro Glu Leu Pro Leu Ala Lys Glu Glu Pro Ala Pro Arg Pro
            340
                                345
Leu Pro Glu Asn Arg Val Ala Ala Gly Arg Asn His Phe Ala Glu Pro
                            360
                                                365
Ala Val Ala Arg Glu Pro Ala Ala Pro Arg Leu Ser Pro Ala Gly Asn
                        375
                                            380
Ala Pro Arg Pro Thr Gly Ala Asn Tyr Pro Asn Ala Gln Pro Gly Tyr
                    390
                                        395
His Lys Gln Gln Gly Ala Leu Tyr Arg Lys Leu Leu Asp Thr Pro Ala
                405
                                    410
Val Glu His Lys Glu His Ile Thr Val Ser Thr Pro Ser Leu Asp Gly
            420
                                425
His Ser Gln Ser Phe Gly Arg Val Leu Thr Ile Ile Ala Pro Asp Met
                            440
                                                445
Ala Leu Leu Glu Arg Glu Gly Lys Leu Leu Leu Leu Ala Leu Ser Val
                        455
                                            460
Ala Glu Arg Trp Leu Lys Gln Ala Gln Leu Thr Pro Gly Val Asn Ala
                    470
                                        475
Ala Cys Ala Gln Pro Leu Leu Ile Pro Val Arg Leu Lys Ile Ser Pro
                                    490
                485
Glu Glu Thr Gly Val Leu Arg Arg Val Gln Thr Gln Leu Ala Glu Met
                                505
            500
Gly Ile Glu Ile Val Leu Asp Ala Gln His Val Thr Ile Arg Ala Val
                                                 525
        515
                            520
Pro Leu Pro Leu Arg Gln Gln Asn Leu Gln Asn Leu Ile Pro Glu Leu
                        535
                                            540
Ile Gly Tyr Leu Ala Gln Gln Thr Thr Phe Asp Ala Ala Asp Thr Ala
                                        555
                    550
Gln Trp Ile Ala Arg His Leu Ala Ser Glu His Ala Pro Trp Ser Met
                565
                                    570
Ala Gln Ala Ile Thr Val Leu Ala Glu Val Glu Arg Leu Cys Pro Gln
                                                     590
            580
                                585
Leu Val Lys Ala Pro Ala Arg Trp Phe Val Thr Thr Cys
        595
                            600
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<210> 6421 <211> 108

<212> PRT

<213> Enterobacter cloacae

<400> 6421

<211> 564

<212> PRT

<213> Enterobacter cloacae

<400> 6422 Arg Ala Ile His Ser Ile Ser Pro Trp Tyr Cys Leu Ser Ser His Ala 10 Trp Ser Leu Gly Ser Leu Ala Glu Arg Ser Val Ser Val Ile Pro Thr 25 Phe Trp Lys Pro Ser Ser Ala Pro His Cys Phe Ile Phe Cys Ala Asn 40 Ser Leu Arg Ser Arg Gly Cys Asp Met Thr Asp His Thr Val Lys Lys 55 Asn Leu Ala Ser Ile Pro His Ser Ile Trp His Ala Asp Asp Leu Arg 75 Arg Ala Glu Lys Glu Ala Ala Asp Ser Leu Gly Ile Thr Leu Tyr Glu 85 90 Leu Met Gln Arg Ala Gly Glu Ala Ala Phe Asn Val Ala Arg Thr Ala 105 Tyr Pro Asp Ala Ser His Tyr Leu Ile Leu Cys Gly His Gly Asn Asn 120 125 115 Gly Gly Asp Gly Tyr Val Val Ala Arg Leu Ala Val Ala Ala Gly Leu 135 140 Arg Val Thr Leu Met Ala Leu Glu Ser Asp Lys Pro Leu Pro Glu Glu 155 150 Ala Gly Met Ala Arg Glu Ala Trp Leu Asn Ala Gly Gly Ile Ile His 170 165 Ala Pro Asp Ile Ile Trp Pro Glu Asp Val Asp Val Ile Val Asp Gly 185 Leu Leu Gly Thr Gly Leu Met Arg Ala Pro Arg Asp Asp Val Ala Ala 200 205 Leu Ile Thr Arg Ala Asn Ala His Pro Ala Pro Val Val Ala Leu Asp 215 220 Ile Pro Ser Gly Leu Met Ala Gln Thr Gly Ala Thr Pro Gly Val Ser 235 230 Ile Glu Ala Ala His Thr Val Thr Phe Ile Ala Leu Lys Pro Gly Leu 245 250 Leu Thr Gly Lys Ala Arg Asp Val Val Gly Thr Leu His His Asn Ala 265 270 260 Leu Gly Leu Glu Asn Trp Leu Ile Gly Gln Asp Thr His Ile Thr Arg 280 Phe Asp Ala Ser Gln Leu Ala Gln Trp Leu Pro Pro Arg Arg Pro Thr 295 300 Ser His Lys Gly Asp His Gly Arg Leu Leu Ile Ile Gly Gly Asp His 310 315 Gly Thr Ala Gly Ala Ile Arg Met Thr Gly Glu Ala Ala Leu Arg Ser 325 330 Gly Gly Gly Leu Ile Arg Val Leu Thr Arg Ser Glu Asn Ile Pro Pro 345 340 Ile Ile Thr Ala Arg Pro Glu Leu Met Val His Glu Leu Thr Pro Gln 360 Ala Ile Glu Lys Gly Leu Glu Trp Ala Asp Val Val Ile Gly Pro 375 380 Gly Leu Gly Gln Gln Glu Trp Gly Lys Gln Ala Leu Gln Lys Ala Glu 395 390 Asn Phe Arg Lys Pro Met Leu Trp Asp Ala Asp Ala Leu Asn Leu Leu 405 410 Ala Ile Asn Pro Asp Lys Arg His Asn Arg Ile Leu Thr Pro His Pro 425

Gly Glu Ala Ala Arg Leu Leu Asn Cys Ser Val Ala Glu Ile Glu Ser 435 440 445

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Asp Arg Leu Leu Ser Ala Gln Arg Leu Val Lys Arg Tyr Gly Gly Val
                        455
Ala Val Leu Lys Gly Ala Gly Thr Val Ile Ala Ser Asp Asp Ala Met
                    470
                                         475
Gly Ile Val Asp Ala Gly Asn Ala Gly Met Ala Ser Gly Gly Met Gly
                                    490
                485
Asp Val Leu Ser Gly Ile Ile Gly Ala Leu Leu Gly Gln Lys Leu Pro
                                505
                                                     510
Leu Tyr Asp Ala Ala Cys Ala Gly Cys Val Ala His Gly Thr Ala Ala
                            520
                                                 525
        515
Asp Arg Leu Ala Arg Tyr Gly Thr Arg Gly Met Leu Ala Thr Asp
                        535
                                             540
Leu Phe Cys Thr Leu Arg Arg Val Val Asn Pro Asp Val Ile Asp Val
                    550
                                         555
Glu Asn Asp
<210> 6423
<211> 75
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(12)
<400> 6423
Phe Ile Ser Ser Cys Arg Thr Arg Lys Ser Arg Xaa Phe Met Gly Ile
                5
                                    10
Arg Asp Tyr Phe Ala Asn Asp Ala Ile Cys Leu Val Glu Trp Pro Gln
                                25
Gln Gly Ala Gly Val Leu Pro Asp Pro Asp Val Glu Ile His Leu Asp
                            40
Tyr Gln Ala Gln Gly Arg Glu Ala Arg Ile Ser Ala Val Ser Ser Ser
                        55
Gly Cys Ser Leu Leu Ala Arg Leu Ala Gly
                    70
<210> 6424
<211> 318
<212> PRT
<213> Enterobacter cloacae
<400> 6424
Asn Met Thr Asp Val Ser Lys Ala Ser Leu Pro Lys Ala Ile Phe Leu
                                    10
Met Gly Pro Thr Ala Ser Gly Lys Thr Ala Leu Ala Ile Glu Leu Arg
Lys Val Leu Pro Val Glu Leu Ile Ser Val Asp Ser Ala Leu Ile Tyr
Arg Gly Met Asp Ile Gly Thr Ala Lys Pro Asn Ala Asp Glu Leu Arg
                        55
Ala Ala Pro His Arg Leu Leu Asp Ile Leu Asp Pro Ala Gln Ala Tyr
                                        75
Ser Ala Ala Asp Phe Arg Arg Asp Ala Leu Ala Glu Met Ala Glu Ile
                8.5
                                    90
Thr Ala Ala Gly Arg Ile Pro Leu Leu Val Gly Gly Thr Met Leu Tyr
                                105
Phe Lys Ala Leu Leu Glu Gly Leu Ser His Leu Pro Ser Ala Asp Pro
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115 120 125
Glu Val Arg Ala Lys Ile Glu Arg Gln Ala Ala Glu Gln Gly Trp Asp

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130
                        135
                                            140
Val Leu His Arg Gln Leu Glu Glu Ile Asp Pro Val Ala Ala Ala Arg
                   150
                                       155
Ile His Pro Asn Asp Pro Gln Arg Leu Ser Arg Ala Leu Glu Val Phe
               165
                                   170
Phe Ile Ser Gly Lys Thr Leu Thr Glu Leu Thr Gln Thr Ser Gly Asp
                                185
           180
                                                    190
Ala Leu Pro Tyr Gln Val His Gln Phe Ala Ile Ala Pro Ala Ser Arg
                            200
                                                205
Glu Leu Leu His Gln Arg Ile Glu Gln Arg Phe His Gln Met Leu Ala
                        215
                                            220
Ser Asp Phe Glu Ala Glu Val Arg Ala Leu Phe Ala Arg Gly Asp Leu
                    230
                                        235
His Thr Asp Met Pro Ser Ile Arg Cys Val Gly Tyr Arg Gln Met Trp
                245
                                    250
Ser Tyr Leu Glu Gly Glu Ile Ser Tyr Asp Glu Met Val Tyr Arg Gly
                                265
Val Cys Ala Thr Arg Gln Leu Ala Lys Arg Gln Ile Thr Trp Leu Arg
                            280
Gly Trp Lys Gly Val His Trp Leu Asp Ser Glu Lys Pro Gln Gln Ala
                        295
                                            300
Leu Asn Glu Val Ile Glu Val Ile Gly Asp Ile Ala Asp
                    310
<210> 6425
<211> 124
<212> PRT
<213> Enterobacter cloacae
<400> 6425
Arg Gly Leu Arg Leu Phe Asp Arg Tyr Asp Ala Gly Glu Gln Ala Val
Leu Val His Ile Tyr Phe Ser Gln Asp Lys Asp Met Glu Asp Leu Gln
            20
Glu Phe Glu Ser Leu Val Ser Ser Ala Gly Val Glu Ala Met Gln Val
                            40
Ile Thr Gly Ser Arg Lys Ala Pro His Pro Lys Tyr Phe Val Gly Glu
                        55
                                            60
Gly Lys Ala Val Lys Ile Ala Asp Ala Val Lys Ala Thr Gly Ala Ser
                    70
                                        75
Val Val Leu Phe Asp His Ala Leu Ser Pro Ala Gln Glu Arg Asn Leu
                                    90
Glu Ala Leu Cys Glu Cys Arg Val Ile Asp Arg Thr Gly Leu Ile Leu
                                105
Asp Ile Phe Ala Gln Arg Ala Arg Thr His Glu Gly
<210> 6426
<211> 417
<212> PRT
<213> Enterobacter cloacae
<400> 6426
Arg Val Met Pro Arg Leu Ser Ala Ala Ser Phe Ser Ala Arg Arg Arg
                                    10
Ser Ser Ala Cys Gln Met Glu Cys Gly Ile Leu Ala Arg Phe Phe Phe
                                25
Thr Val Trp Ser Val Met Ser Gln Pro Leu Asp Leu Asn Glu Leu Ala
                            40
Gln Lys Ile Lys Gln Trp Gly Ala Glu Leu Gly Phe Gln Lys Val Gly
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Ile Thr Asp Thr Asp Leu Ser Ala Ser Glu Pro Lys Leu Gln Ala Trp 70 75 Leu Asp Lys Gln Tyr His Gly Glu Met Glu Trp Ile Ala Arg His Gly 90 85 Met Met Arg Ala Arg Pro His Glu Leu Leu Pro Gly Thr Leu Arg Val 100 105 Ile Ser Val Arg Met Asn Tyr Leu Pro Ala Asn Ala Ala Phe Ala Arg 120 Thr Leu Lys Asn Pro Ser Leu Gly Tyr Val Ser Arg Tyr Ala Leu Gly 135 140 Arg Asp Tyr His Lys Leu Leu Arg Asn Arg Leu Lys Lys Leu Gly Glu 150 155 Thr Ile Gln Gln His Cys Val Ser Leu Asn Phe Arg Pro Phe Val Asp 165 170 Ser Ala Pro Ile Leu Glu Arg Pro Ile Ala Glu Lys Ala Gly Leu Gly 185 180 Trp Thr Gly Lys His Ser Leu Ile Leu Ser Arg Asp Ala Gly Ser Phe 200 195 Phe Phe Leu Gly Glu Leu Leu Ile Asp Leu Pro Leu Pro Val Asp Ser 220 215 Pro Val Glu Glu Gly Cys Gly Arg Cys Val Ala Cys Met Thr Ile Cys 230 235 Pro Thr Gly Ala Ile Val Glu Pro Tyr Thr Val Asp Ala Arg Arg Cys 250 245 Ile Ser Tyr Leu Thr Ile Glu Leu Glu Gly Ala Ile Pro Glu Glu Phe 265 260 Arg Pro Leu Ile Gly Asn Arg Ile Tyr Gly Cys Asp Asp Cys Gln Leu 275 280 285 Ile Cys Pro Trp Asn Arg Tyr Ser Gln Leu Thr Asp Glu Glu Asp Phe 300 295 Ser Pro Arg Lys Ala Leu His Ala Pro Gln Leu Ile Glu Leu Phe Ala 310 315 Trp Ser Glu Ala Trp Phe Leu Lys Val Thr Glu Gly Ser Ala Ile Arg 325 330 Arg Ile Gly His Leu Arg Trp Leu Arg Asn Val Ala Val Ala Leu Gly 340 345 Asn Ala Pro Trp Asp Glu Ala Asn Leu Gln Ala Leu Glu Ser Arg Arg 360 Gly Glu His Pro Leu Leu Asp Glu His Ile Glu Trp Ala Ile Ala Gln 375 380 Gln Ile Glu Lys Arg Asn Ala Gly Val Val Glu Val Gln Leu Pro Lys 390 395 Lys Gln Arg Leu Val Arg Val Ile Glu Lys Gly Leu Pro Arg Asp Val 410

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<210> 6427
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## <400> 6427

Arg Leu Asp Gly Leu Trp Gln Leu Val Gly Phe Tyr Leu Gly Trp Leu 1 10 15
Gly Gly Glu Gly Lys Gly Arg Ala Leu Gly Val Gly Glu Val Lys Phe 20 25 30
Thr Gly Gln Val Leu Pro Thr Ala Lys Lys Val Thr Tyr Arg Ile His 35 40 45
Phe Lys Arg Ile Val Asn Arg Arg Leu Ile Met Gly Leu Ala Asp Gly

<sup>&</sup>lt;211> 91

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Glu Val Leu Val Asp Gly Arg Leu Ile Tyr Thr Ala Asn Asp Leu Lys 70 75 Val Gly Leu Phe Gln Asp Thr Ser Ala Phe 85 <210> 6428 <211> 150 <212> PRT <213> Enterobacter cloacae <400> 6428 Ile Gly Ile Val Ile Ala Arg Val Ser His Gln Leu Ala Ala Val Glu Val Asp Asn Ala Arg Gly His Ile Ala Asp Glu Arg Thr Val Val Gly 20 Asp Glu Asp Asn Gly Ala Val Lys Gly Phe Gln Glu Pro Phe Gln Pro . 40 Val Asn Arg Phe Asp Ile Gln Val Val Arg Arg Phe Val Gln Gln 55 His Leu Arg Pro Ala His Gln Gly Thr Ala Gln Arg Arg Phe Thr Gln 70 7.5 Pro Ala Ala Gly Glu Arg Arg Gln Leu His Ile Arg Phe Gln Ala Lys 90 Leu Gly Gln His Phe Ile Asn Ala Val Phe Gln Leu Pro Gln Thr Val 105 100 Val Ile Glu His Leu Leu His Phe Cys Gln Leu Val Glu Ile Leu Val 120 Ala Arg Val Arg His Asp Gln Met Arg Asn Leu Val Val Thr Leu Glu 130 135 Val Phe Arg Leu Leu <210> 6429 <211> 105 <212> PRT <213> Enterobacter cloacae <400> 6429 Val Thr Ser Leu Pro Arg Ser Arg Ser Thr Met Arg Val Ala Ile Leu Arg Met Asn Glu Arg Ser Trp Glu Met Lys Ile Met Val Pro Leu Lys Val Phe Arg Asn Pro Ser Ser Gln Ser Ile Ala Ser Ile Ser Arg Trp 40 Phe Val Gly Ser Ser Ser Ser Thr Leu Gly Pro Leu Thr Arg Ala Arg Pro Ser Ala Ala Leu Arg Ser Gln Pro Pro Glu Ser Ala Asp Ser 75 Ser Ile Ser Ala Ser Arg Pro Ser Trp Ala Ser Thr Ser Leu Met Arg 90 85 Phe Ser Ser Cys His Arg Pro Trp 100 105 <210> 6430

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<210> 0430
<211> 419
<212> PRT
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<213> Enterobacter cloacae

<400> 6430

Ser Met Cys Asp Gln His His Ala Asp Arg His Ile Leu Cys Ser Gln 1 5 10 15

Cys Asp Met Leu Val Ala Leu Pro Glu Leu Gly His Gly His Lys Ala 25 Ala Cys Pro Arg Cys Gly Ala Thr Leu Thr Thr Glu Trp Asp Ala Pro 40 45 Arg Gln Arg Pro Thr Ala Tyr Ala Leu Ala Ala Leu Phe Met Leu Leu 55 Leu Ser Asn Leu Phe Pro Phe Ile Tyr Met Lys Val Gly Gly Met Thr 70 75 Ser Gln Val Asp Leu Leu Glu Ile Pro Gly Val Met Phe Ser Glu Asp 90 85 Tyr Ala Ser Leu Gly Thr Phe Phe Leu Leu Phe Val Gln Ile Val Pro 100 105 Ala Phe Cys Leu Val Val Ile Leu Leu Leu Val Asn Arg Val Arg Met 120 125 Pro Thr Val Leu Lys Ile Lys Leu Ala Arg Ile Leu Phe Gln Leu Lys 135 140 Ser Trp Gly Met Ala Glu Ile Phe Leu Ala Gly Ile Leu Val Ser Phe 155 150 Val Lys Leu Met Ala Tyr Gly Asp Val Gly Ile Gly Ser Ser Phe Ile 165 170 Pro Trp Cys Leu Tyr Cys Val Leu Gln Leu Arg Ala Phe Gln Cys Val 185 180 Asp Arg Arg Trp Ala Trp Asp Asp Ile Ala Pro Ala Pro Thr Leu Ser 200 195 205 Gln Thr Val Lys Val Gly Val Pro Gly Ile Arg Gln Gly Leu Arg Ser 215 220 Cys Ser Cys Cys Thr Ala Val Leu Pro Ala Asp Val Glu Val Cys Pro 235 230 Arg Cys Glu Thr Lys Gly His Val Arg Arg Lys Asn Ser Leu Gln Trp 245 250 Thr Met Ala Leu Leu Val Thr Ser Val Met Leu Tyr Leu Pro Ala Asn 265 270 260 Ile Leu Pro Ile Met Ile Thr Asp Leu Leu Gly Asp Arg Met Pro Ser 280 285 Thr Ile Leu Ala Gly Val Ile Leu Leu Trp Ser Glu Gly Ser Tyr Pro 295 300 Val Ala Gly Val Ile Phe Leu Ala Ser Ile Met Val Pro Thr Leu Lys 310 315 Met Ile Ala Ile Ala Trp Leu Cys Trp Asp Ala Lys Gly His Gly Lys 330 335 325 Arg Asp Ser Glu Arg Met His Leu Ile Tyr Glu Val Val Glu Phe Val 340 345 350 Gly Arg Trp Ser Met Ile Asp Val Phe Val Ile Ala Val Leu Ser Ala 360 Leu Val Arg Met Gly Gly Leu Met Ser Ile Tyr Pro Ala Met Gly Ala 375 380 Leu Met Phe Ala Leu Val Val Ile Met Thr Met Phe Ala Ala Met Thr 390 Phe Asp Pro Arg Leu Ser Trp Asp Arg Glu Pro Asp Ser Ser His Glu 405 410 Glu Glu

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<210> 6431
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<sup>&</sup>lt;211> 77

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;400> 6431

Pro Ser Thr Leu Val Tyr Arg Gly Ile Val Ser Pro Ile Gln Ala Met
1 5 10 15

 Arg Lys
 Ser Lys
 Ser Met Glu Asn Lys
 Ser Gly Glu Ala Lys
 Val Gln 20

 Lys
 Val Arg Asn Trp Ser Pro Val Trp Ile Phe Pro His Arg Asp Arg 35
 Avg 40
 45

 Ala Asp Arg Cys
 Met Asp Pro Val Leu Ser Leu Gln Pro Ser Gly Thr 50
 55
 60

 Gly
 Ser His Ala Asn Tyr His Gln Cys Arg Gly Asp 65
 70
 75

<210> 6432 <211> 193 <212> PRT <213> Enterobacter cloacae

<400> 6432

Glu Gly Glu Thr Met Lys Lys Trp Leu Ile Ile Ala Gly Ala Leu Val Leu Thr Ala Cys Ser Phe Gly Ser Asp Asn Lys Ser Tyr Tyr Gln Leu 20 25 Pro Leu Ser Ala Gln Ser Gly Ala Gln Ser Ser Thr Ser Gln Gly Ser 40 Arg Leu Leu Trp Val Glu Gln Val Ala Val Pro Asp Tyr Leu Ala Gly Asn Gly Val Val Tyr Gln Thr Ser Asp Val Gln Tyr Val İle Ala Asn 70 Asn Asn Leu Trp Ala Ser Pro Leu Asp Gln Gln Leu Arg Asn Thr Leu 90 Val Ala Asn Leu Ser Ser Gln Leu Pro Gly Trp Val Val Ala Ser Gln 105 Pro Leu Gly Ser Asp Gln Asp Thr Leu Asn Val Asn Val Thr Gly Phe 120 His Gly Arg Tyr Asp Gly Ala Val Val Ile Ser Gly Glu Trp Leu Leu 135 140 Asn His Gln Gly Gln Leu Ile Lys Arg Pro Phe His Leu Glu Leu Lys Gln Gln Lys Asp Gly Tyr Asp Glu Met Val Lys Val Leu Ala Gln Gly 170 Trp Ala Gln Glu Ser Ala Ala Ile Ala Arg Glu Ile Ser Arg Leu Pro

<210> 6433 <211> 675 <212> PRT <213> Enterobacter cloacae

 <400> 6433

 Arg Val Val Gln Gly Gly Val His Phe Glu Gly Asp Thr Arg Leu Ile

 1
 5
 10
 15

 Tyr Gln Ser Leu Met Trp Ser Arg Leu Ala Ser Arg Ile Met Leu Pro 20
 25
 30

 Met Lys Glu Cys Lys Val Tyr Ser Asp Leu Asp Leu Tyr Thr Gly Val 35
 40
 45

 Gln Met Ile Asp Trp Thr Glu Ile Phe Thr Pro Asp Ala Thr Phe Ala 50
 55
 60

 Val His Phe Asn Gly Val Asn Asp Glu Ile Arg Asn Ser Gln Tyr Gly 65
 70
 75
 80

 Ala Leu Arg Val Lys Asp Ala Ile Val Asp Cys Phe Thr Arg Arg Asn 85
 90
 95

 Lys Glu Arg Pro Asn Val Asp Arg Glu Asn Pro Asp Leu Arg Ile Asn

100 105 110 Val Trp Leu Asn Gly Asp Thr Ala Ser Ile Ser Leu Asp Leu Ser Gly 120 125 Ala Gly Leu His Leu Arg Gly Tyr Arg Asp Arg Thr Gly Met Ala Pro 135 140 Ile Lys Glu Thr Leu Ala Ala Ile Val Met Arg Ser Gly Trp Gln 150 155 Pro Gly Thr Pro Leu Leu Asp Pro Met Cys Gly Ser Gly Thr Leu Leu 165 170 Ile Glu Ala Ala Met Leu Ala Thr Asp Arg Ala Pro Gly Leu His Arg 185 Gly His Trp Gly Phe Lys Gly Trp Ala Gln His Asp Glu Ala Ile Trp 200 Lys Glu Val Lys Asp Asp Ala Gln Thr Arg Ala Arg Lys Gly Leu Ala 215 . Glu Tyr Thr Ser His Phe Tyr Gly Ser Asp Ser Asp Ala Arg Val Ile 230 235 Glu Arg Ala Arg Ser Asn Ala Arg Arg Ala Gly Ile Gly Glu Leu Val 250 245 Thr Phe Glu Val Lys Asp Val Ala Asn Leu Thr Asn Pro Leu Pro Lys 265 260 Gly Pro Tyr Gly Thr Val Ile Ser Asn Pro Pro Tyr Gly Glu Arg Leu 275 280 285 Asp Ser Glu Pro Ala Leu Ile Ala Leu His Ser Leu Leu Gly Arg Asn 300 295 Met Lys Ala His Phe Gly Gly Trp Asn Leu Ser Leu Phe Ser Ala Ser 315 310 Pro Glu Leu Leu Ser Cys Leu Gln Leu Arg Ala Asp Arg Gln Phe Lys 330 325 Ala Lys Asn Gly Pro Leu Asp Cys Val Gln Lys Asn Tyr His Leu Ala 345 340 Glu Ile Ala Ala Asp Ser Lys Pro Ser Gly Val Ala Glu Asp Tyr Ala 360 Asn Arg Leu Arg Lys Asn Leu Lys Lys Phe Glu Lys Trp Ala Lys Gln 375 380 Glu Gly Ile Glu Cys Tyr Arg Leu Tyr Asp Ala Asp Leu Pro Glu Tyr 390 .395 Asn Val Ala Val Asp Arg Tyr Ala Asp Trp Val Val Gln Glu Tyr 410 Ala Pro Pro Lys Thr Ile Asp Ala Gln Lys Ala Arg Gln Arg Met Leu 420 425 Asp Val Ile Ala Ala Thr Phe Ala Val Leu Gly Ile Ser Pro Asn Lys 440 Leu Val Leu Lys Thr Arg Glu Arg Gln Lys Gly Lys Asn Gln Tyr Gln 455 Lys Met Gly Glu Lys Gly Asp Phe Ile Glu Val Gly Glu Tyr Asn Ala 470 475 Arg Leu Trp Val Asn Leu Thr Asp Tyr Leu Asp Thr Gly Leu Phe Leu 490 485 Asp His Arg Ile Ala Arg Arg Met Leu Gly Gln Met Ser Lys Gly Lys 505 510 Asp Phe Leu Asn Leu Phe Ser Tyr Thr Gly Ser Ala Ser Val His Ala 520 525 Gly Leu Gly Gly Ala Arg Ser Thr Thr Thr Val Asp Met Ser Arg Thr 535 540 Tyr Leu Glu Trp Ala Glu Arg Asn Leu Arg Leu Asn Gly Leu Thr Gly 550 555 Arg Gln His Arg Leu Leu Gln Ala Asp Val Leu Gly Trp Leu Arg Asp 565 570 Thr Asp Glu Gln Phe Asp Leu Ile Phe Ile Asp Pro Pro Thr Phe Ser 585

```
Asn Ser Lys Arg Met Glu Asp Ser Phe Asp Val Gln Arg Asp His Leu
                            600
Arg Leu Met Thr Asp Leu Lys Arg Leu Leu Arg Lys Gly Gly Thr Ile
                        615
                                             620
Met Phe Ser Asn Asn Lys Arg Gly Phe Arg Met Asp His Asp Gly Leu
                                        635
                   630
Ala Glu Leu Gly Leu Lys Ala Gln Glu Ile Ser Gln Lys Thr Leu Ser
                645
                                    650
Gln Asp Phe Ala Arg Asn Arg Gln Ile His Asn Cys Trp Leu Ile Ser
                                665
Ala Val
        675
<210> 6434
<211> 636
<212> PRT
<213> Enterobacter cloacae
<400> 6434
Met Ser Leu Ile Ser Met His Gly Ala Trp Leu Ser Phe Ser Asp Ser
                                    10
Pro Leu Leu Asp Asn Ala Glu Leu His Ile Glu Asp Asn Glu Arg Val
            20
Cys Leu Val Gly Arg Asn Gly Ala Gly Lys Ser Thr Leu Met Lys Ile
                            40
Leu Asn Arg Glu Gln Gly Leu Asp Asp Gly Arg Ile Val Tyr Glu Gln
                        55
Asp Leu Ile Val Ser Arg Leu Gln Gln Asp Pro Pro Arg Asn Val Thr
                                        75
                    70
Gly Ser Val Tyr Asp Phe Val Ala Glu Gly Ile Ser Glu Gln Ala Glu
                                     90
                85
Tyr Leu Lys Arg Tyr His Glu Ile Ser His Leu Val Met Thr Asp Pro
            100
                                105
                                                     110
Ser Asp Lys Asn Leu Asn Glu Leu Ala Lys Val Gln Glu Met Leu Asp
                            120
        115
His His Gly Leu Trp Gln Leu Glu Asn Arg Ile Asn Glu Val Leu Ala
                        135
                                             140
Gln Leu Gly Leu Glu Ala Asp Met Glu Leu Ser Ala Leu Ser Gly Gly
                    150
                                         155
Trp Leu Arg Lys Ala Ala Leu Gly Arg Ala Leu Val Ser Gly Pro Lys
                                    170
                165
Val Leu Leu Asp Glu Pro Thr Asn His Leu Asp Ile Glu Ala Ile
                                                     190
                                185
Asp Trp Leu Glu Gly Phe Leu Lys Thr Phe Asn Gly Thr Ile Ile Phe
                            200
Ile Ser His Asp Arg Ser Phe Ile Arg Asn Met Ala Thr Arg Ile Val
                        215
Asp Leu Asp Arg Gly Lys Leu Val Thr Tyr Pro Gly Asp Tyr Asp Thr
                    230
                                         235
Tyr Leu Leu Glu Lys Glu Glu Asn Leu Arg Val Glu Glu Leu Gln Asn
                245
                                     250
Ala Glu Phe Asp Arg Lys Leu Ala Gln Glu Glu Val Trp Ile Arg Gln
            260
                                265
Gly Ile Lys Ala Arg Arg Thr Arg Asn Glu Gly Arg Val Arg Ala Leu
        275
                            280
Lys Ala Met Arg Arg Glu Arg Ser Glu Arg Arg Glu Val Met Gly Ser
                                             300
                        295
Ala Lys Met Gln Val Glu Glu Ala Ser Arg Ser Gly Lys Ile Val Phe
                    310
                                         315
Glu Met Glu Asn Val Asn Tyr Ser Val Asp Gly Lys Val Leu Val Asn
```

```
Asp Phe Ser Ala Gln Val Gln Arg Gly Asp Lys Ile Ala Leu Ile Gly
            340
                                345
Pro Asn Gly Cys Gly Lys Thr Thr Leu Leu Lys Leu Met Leu Gly Gln
                            360
Leu Gln Ala Asp Ser Gly Arg Ile His Cys Gly Thr Lys Leu Glu Val
                                            380
                        375
Ala Tyr Phe Asp Gln His Arg Ala Glu Leu Asp Pro Asp Arg Thr Val
                    390
                                        395
Met Asp Asn Leu Ala Glu Gly Lys Gln Glu Val Met Val Asn Gly Lys
                405
                                    410
Pro Arg His Val Leu Gly Tyr Leu Gln Asp Phe Leu Phe His Pro Lys
                                425
Arg Ala Met Thr Pro Val Arg Ala Leu Ser Gly Glu Arg Asn Arg
                            440
Leu Leu Leu Ala Arg Leu Phe Leu Lys Pro Ser Asn Leu Leu Ile Leu
                        455
                                            460
Asp Glu Pro Thr Asn Asp Leu Asp Val Glu Thr Leu Glu Leu Leu Glu
                    470
                                        475
Glu Leu Ile Asp Gly Tyr Gln Gly Thr Val Met Leu Val Ser His Asp
                                    490
                485
Arg Gln Phe Val Asp Asn Thr Val Thr Glu Cys Trp Ile Phe Glu Gly
            500
                                505
                                                     510
Glu Gly Arg Ile Gly Gln Tyr Val Gly Gly Tyr His Asp Ala Arg Gly
                            520
                                                525
        515
Gln Gln Ser Gln Ser Leu Ala Gln Lys Gln Ala Lys Thr Lys Asn Val
                        535
                                            540
Ala Glu Pro Val Val Ala Lys Ala Glu Thr Val Lys Lys Ser Pro Ala
                    550
                                        555
Lys Met Ser Tyr Asn Leu Gln Arg Glu Leu Glu Gly Leu Pro Gln Arg
                565
                                    570
Leu Glu Glu Leu Glu Ala Leu Glu Ala Leu Gln Ile Gln Val Ala
            580
                                585
Asp Ala Ser Phe Phe Thr Gln Pro His Asp Tyr Thr Gln Lys Val Leu
        595
                            600
Ala Glu Leu Ser Gln Ala Glu Gln Ala Leu Glu Glu Ala Phe Glu Arg
                        615
Trp Glu Tyr Leu Glu Ser Leu Lys Asn Gly Ala
                    630
<210> 6435
<211> 552
<212> PRT
<213> Enterobacter cloacae
<400> 6435
Gly Arg Val Arg Ala Trp Lys Ile Arg Val Glu Arg Leu Lys Cys Arg
```

Arg Ser Glu Thr Gly Arg Arg Cys Gly Phe Ser Pro Ile Val Thr Ala Leu Ile Gly Ala Trp Ile Leu Phe Tyr His Tyr Ser His Gln Gly Pro 40 Glu Val Thr Leu Ile Thr Thr Asn Ala Glu Gly Ile Glu Gly Gly Lys 55 Thr Thr Ile Lys Ser Arg Ser Val Asp Val Gly Val Val Glu Ser Ala 70 7.5 Thr Leu Thr Asp Asp Leu Thr His Val Glu Ile Lys Ala Arg Leu Asn 90 8.5 Ala Gly Met Glu Lys Leu Leu His Glu Asp Ser Val Phe Trp Val Val 100 105 110 Lys Pro Gln Val Gly Arg Glu Gly Ile Ser Gly Leu Gly Thr Leu Leu 120

Ser Gly Ala Tyr Ile Glu Leu Gln Pro Gly Asn Lys Gly Ala Gln Pro 135 140 Ala Asn Tyr Gln Leu Leu Asp Ser Pro Pro Leu Ala Pro Pro Asp Ala 155 150 Lys Gly Ile Arg Val Ile Leu Asp Ser Lys Lys Ala Gly Gln Leu Ser 170 165 Pro Gly Asp Pro Val Leu Phe Arg Gly Tyr Arg Val Gly Ser Val Glu 180 185 190 Thr Ser Thr Phe Asp Pro Gln Lys Arg Thr Ile Ser Tyr Gln Leu Phe 200 205 Ile Asn Ala Pro Asn Asp Arg Leu Val Thr Ser Asn Val Arg Phe Trp 215 220 Lys Asp Ser Gly Ile Ala Val Asp Leu Thr Ser Ala Gly Met Arg Val 230 235 Glu Met Gly Ser Leu Thr Thr Leu Phe Gly Gly Val Ser Phe Asp 245 250 Val Pro Glu Gly Ile Asp Leu Gly Gln Pro Val Ala Glu Lys Thr Ala 260 265 Phe Arg Leu Phe Asp Asp Gln Lys Ser Ile Gln Asp Ala Leu Tyr Thr 280 285 Asp His Ile Asp Tyr Leu Met Phe Phe Lys Asp Ser Val Arg Gly Leu 295 300 Gln Pro Gly Ala Pro Val Glu Phe Arg Gly Ile Arg Leu Gly Thr Val 310 315 Gly Gln Val Pro Tyr Phe Val Pro Gly Leu Lys Gln Met Leu Asp Asp 325 330 Asp Tyr Arg Ile Pro Val Leu Ile Arg Ile Glu Pro Glu Arg Leu Ile 340 345 350 Asn Gln Ile Gly Glu Asp Gln Asp Ile Gly Glu His Ile Ser Asp Leu 360 365 Leu Asn Arg Gly Leu Arg Gly Ser Leu Lys Thr Gly Asn Leu Val Thr 375 380 Gly Ala Leu Tyr Val Asp Met Asp Phe Tyr Pro Lys Ala Pro Pro Met 390 395 Thr Gly Val Arg Glu Phe Gly Gly Tyr Lys Ile Ile Pro Thr Val Ser 405 410 Ser Gly Leu Ala Gln Ile Gln Gln Arg Leu Met Glu Thr Leu Asp Lys 420 425 430 Ile Asn Asn Leu Pro Leu Asn Pro Met Leu Glu Ala Ala Thr Gly Ser 435 440 Leu His Gln Ser Gln Ala Thr Met Leu Arg Leu Gln Thr Thr Leu Asp 455 460 Asn Ile Asn Lys Ile Thr Ala Asn Gln Ser Met Gln Gln Leu Pro Gln 470 475 Asp Met Gln Lys Thr Leu Arg Glu Leu Asn Arg Ser Met Gln Gly Phe 485 490 Gln Pro Gly Ser Ala Ala Tyr Asn Lys Met Val Ala Asp Met Gln Arg 500 505 Leu Asp Gln Val Leu Arg Glu Leu Gln Pro Val Leu Lys Thr Leu Asn 515 520 525 Glu Lys Ser Asn Ala Leu Val Phe Glu Ala Lys Asp Lys Lys Asp Pro 530 535 Glu Pro Lys Arg Ala Lys Gln 550 <210> 6436

<sup>&</sup>lt;211> 133

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

2630 Val Phe Tyr Phe Ser Asn Thr Thr Arg Cys Phe Tyr Cys Asp Glu Asn 10 Asn Ile Ser Arg Pro Glu Asp Ala Ile Glu Val Ser Glu Gln Asp Val 25 His Lys Tyr Ser Gly Gln Asn Pro Gln Trp Met Leu Pro Asn Val Ser Glu Gly Gly Lys Met Glu Trp Ile Asp Asp Ile Ser Ile Asp Lys Arg 55 Thr Ala Arg Tyr Glu Ile Asn Lys Gln Glu Lys Glu Arg Leu Leu Asn 70 75 Arg Thr Ile Lys Glu Arg Tyr Thr Leu Glu Val Ile Gly Gln Thr Ser 90 85 Val Leu Ser Val Glu Gln Ser Thr Met Met Gln Ser Leu Ser Ala Tyr 105 100 Ile Asn Glu Leu Asn Gln Val Asp Leu Tyr Ala Asp Asn Pro Val Trp 120 Pro Ile His Pro 130 <210> 6437 <211> 358 <212> PRT <213> Enterobacter cloacae <400> 6437 Glu Val Asn Met Thr Thr Asp Phe Leu His Gly Val Arg Thr Ile Glu Tyr Asp Asp Gly Thr Glu Glu Ile Ser Thr Val Thr Val Ser Val Ile 25 Gly Ile Val Gly Thr Ala Pro Asp Ser Thr Ala Ala Thr Cys Ala Ser Leu Val Thr Gly Ser Glu Leu Thr Asn Asn Lys Ile Thr Trp Gln Ala 55 Glu Asp Ala Gly Ile Lys Gly Asn Ser Phe Ser Val Glu Ile Val Pro 70 75 Gly Asp Val Tyr Pro Ala Asn Thr Lys Trp Gly Gly Asp Val Asn Tyr 85 90 Ser Thr Ile Tyr His Tyr Ser Ile Lys Pro Asp Gly Ser Leu Lys Leu . 110 105 100 Ser Val Arg Met Pro Val Asp Ser Asp Gly Lys Lys Leu Met Asn Ala 115 120 125 Glu Leu Ile Thr Ser Ile Trp Asp Met Val Pro Pro Leu Asp Asn Tyr 135 140 Cys Arg Ile Lys Ala Ile Ile Tyr Ser Thr Ser Asn Asp Asn Gly Lys 155 150 Val Met Tyr Met Ser Glu Thr Asn Leu Ala Gly Gly Ala Asp Glu Ala 165 170 Phe Pro Leu Asn Val Pro Thr Val Ile Ala Gly Ser Thr Thr Lys Ala 185 Ala Lys Leu Gly Ala Thr Gly Thr Leu Pro Ala Asp Ile Asn Asp Ile 200

Phe Asn Gln Thr Arg Ala Leu Ile Val Val Val Arg Val Ala Asp Asp

Ala Asp Ala Ser Lys Leu Gln Gln Asn Val Ile Ala Gly Leu Asn Thr

Leu Pro Ser Ser Gly Gln Leu Asn Glu Val Met Pro Arg Ile Ile Ile

Ala Pro Asp Phe Ser Ala Thr Asp Pro Val Ala Val Gln Ile Glu Val

265 Ile Ala Asn Lys Val Arg Gly Val Gly Tyr Ile Asp Ser Pro Ser Phe 280

220

235

250

215

230

245

260

Ala Thr Ala Lys Asp Val Ala Leu Arg Arg Gln Ser Tyr Gly Lys Arg 295 Val Glu Ile Leu Arg Pro Arg Val Phe Thr Thr Ser Ser Ala Gly Ser 310 315 Thr Ser Arg Ala Tyr Ser Ala Ser Ala Ala Gly Leu Arg Cys Pro Ile 325 330 Asp Asn Lys Lys Gly Phe Trp Trp Ser Lys Ser Asn Gln Gln Ile Met 340 345 Gly Arg Asp Ser Thr 355 <210> 6438 <211> 194 <212> PRT <213> Enterobacter cloacae <400> 6438 -Thr Arg His Arg Ser Leu Leu Leu Lys Met Trp Pro Cys Ala Gly Arg 1 10 Val Thr Glu Ser Ala Ser Lys Ser Tyr Ala Arg Ala Cys Leu Leu Pro 25 20 Val Gln Arg Val Ala Arg His Ala His Ile Gln Arg Ala Arg Arg Ala Tyr Val Val Gln Leu Ile Thr Arg Lys Ala Phe Gly Gly Val Ser Pro 55 Ile Asn Lys Ser Trp Gly Val Thr Ala Leu Glu Gln Val Asp Glu Tyr 70 75 Ile Ile Gly Asp Asp Thr Cys Val Val Asn Leu Leu Asn Lys Asn Gln 8.5 90 Val Ser Thr Ile Val Arg Arg Ser Gly Phe Lys His Trp Gly Asn Tyr 100 105 Leu Cys Ser Thr Asp Pro Pro Trp Ala Phe Glu Cys Val Arg Arg Thr 120 Ala Asp Val Ile Glu Asp Ser Ile Ala Asp Thr Val Glu Asn Glu Phe 135 140 Ile Asp Arg Pro Ile Asp Leu His Leu Gly Asp Asp Ile Ile Glu Ser 150 155 Ile Asn Gly Phe Ile Arg Tyr Leu Phe Asp Ile Gly Ala Ile Asn Gly 170 165 Gly Lys Ala Trp Leu Asp Pro Glu Leu Asn Thr Lys Glu Ser Leu Ala 180 185 Gly <210> 6439 <211> 175 <212> PRT <213> Enterobacter cloacae <400> 6439 Lys Gly Ile Lys Met Ala Glu Ala Asn Val Tyr Arg Ala His Ala Leu 10 Trp Val Gln Gly Arg Leu Val Cys Gly Cys Glu Ser Tyr Thr Pro Val 25 Asp Met Lys Ile Ile Glu Asp Glu Phe Lys Thr Gly Ser Met Asp Met Ala Met Thr Leu Asp Gly Gly Met Glu Arg Met Gly Ala Ser Phe Lys 55 Val Lys Gly Ser Asp Val Asp Val Met Ser Met Phe Gly Phe Ile Pro

70

75

Gly Val Arg Thr Arg Phe Glu Ile Arg Ser Ala Phe Val Thr Asn Ser

90 85 Gly Glu Thr Ile Ile Arg Lys Asp Phe Tyr Glu Gly Pro Ile Thr Gly 105 110 Ile Thr Asp Asp Glu Glu Gly Thr Asp Ser Lys Ser Gly Val Gly Gln 120 Thr Val Thr Ile Ala Pro Asn Tyr Phe Lys Arg Ile Gln Gly Asp Lys 135 Glu Ile Tyr Glu Ile His Pro Ala Lys Met Ile Arg Arg Val Asn Gly 150 155 Val Asn Val Leu Gly Glu Ile Ala Ser Gly Leu Lys Ile Tyr 165 170 <210> 6440 <211> 513 <212> PRT <213> Enterobacter cloacae <400> 6440 Gly Ser Tyr Val Lys Lys Met Ala Ile Ser Gln Asn Phe Arg Ser Thr 10 Val Thr Phe Gly Gly Arg Val Asp Pro Ser Phe Arg Arg Gly Ser Asp 25 30 Glu Leu Lys Gly Ala Ile Lys Glu Ala Gly Gln Ser Val Ser Gln Leu 40 Thr Lys Arg Gln Glu Lys Leu Lys Gln Gln Met Ala Ser Leu Lys Leu 55 Ala Gly Lys Asp Val Ser Ala Leu Ile Lys Gln Tyr Glu Lys Leu Ser 70 Arg Gln Ile Val Asn Ala Thr Glu Asp Gln Glu Lys Leu Asn Gln Gln 90 Leu Lys Arg Gln Glu Arg Leu Asp Lys Trp Lys Gly Arg Ala Ala Ala 105 Val Pro Lys Trp Ala Gly Lys Ala Ala Trp Gly Ala Ala Lys Gly Leu 120 Ala Phe Ser Ser Leu Ala Pro Ala Ala Met Phe Ala Gly Ala Ile Gln 135 Met Asn Ser Glu Thr Ser Glu Lys Leu Gly Leu Ala Lys Ser Tyr Gly 150 Val Gly Ile Asp Lys Tyr Gly Ala Trp Glu Asn Ile Ala Lys Lys Ala 165 170 Gly Leu Asn Gly Glu Asn Val Gly Asp Leu Ala Glu Glu Leu Thr Asn 180 185 Lys Ile Gly Glu Lys Asp Asn Glu Lys Thr Phe Asn Pro Met Leu Ala 195 . 200 Gln Ile Asn Leu Ser Lys Arg Arg Met Ala Gly Trp Ser Arg Glu Lys 215 220 Gln Phe Asp Glu Val Met Ser Arg Ile Ser Arg Met Lys Asp Glu Lys 230 235 Gln Ala Ala Ser Leu Ala Asp Gln Leu Met Gly Gly Glu Ala Asn Lys 245 250 Ile Met Thr Tyr Met Arg Met Thr Gly Lys Thr Trp Glu Gln Thr Met 260 265 Ala Lys Ala Lys Lys Ser Asn Leu Leu Thr Gln Glu Gly Ala Glu Gly 280 285 Ala Ala Arg Ala His Phe Ala Val Thr Asn Leu Trp Gly Ala Ile Thr 295 300 Ser Gly Leu Ser Asp Thr Leu Gly Lys Ile Gly Gly Glu Leu Glu Pro 315 310 Asp Ile Asn Arg Phe Lys Glu Ser Thr Ile Ser Trp Phe Lys Glu Asn 330

Gln Gly Ala Phe Val Glu Gly Ile Arg Asn Trp Ile Lys Pro Asp Glu

```
345
            340
                                                    350
Ser Gly Arg Thr Gly Pro Gln Arg Leu Phe Asp Thr Val Lys Lys Phe
                           360
                                               365
Gly Glu Gly Leu Leu Glu Leu Gly Lys Ile Val Trp Ala Val Ala Lys
                        375
                                            380
Lys Leu Ala Trp Ile Leu Pro Asp Asp Glu Lys Asn Gln Ala Lys Ile
                    390
                                        395
Asp Glu Phe Val Lys Asn Gly Asn Ser Tyr Glu Gly Ala Lys Ser Leu
                405
                                    410
Ala Asp Glu Tyr Gly Leu Glu Asp Trp Phe Lys Glu Asn Tyr Thr Pro
            420
                                425
Glu Lys Val Ala Ala Ala Gln Gln Lys Ala Ala Gly Glu Gly Glu Thr
                            440
Pro Ala Ala Leu Ala Lys Arg Gln Ala Ser Gln Pro Val Gly Tyr Gly
                        455
                                            460
Asn Tyr Ser Pro Arg Val Glu Ile Asn Val Gln Ala Leu Pro Gly Gln
                                        475
                    470
Ser Ala Glu Glu Val Gly Gln Ser Thr Tyr Ala Ala Phe Lys Ala Gly
                                    490
                485
Leu Pro Thr Ala Pro Gly Gly Ser Gly Ala Met Tyr Asp Ile Pro Gly
                                505
            500
<210> 6441
<211> 73
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<212> PRT <213> Enterobacter cloacae

<400> 6441 Phe Met Ala Ile Thr Tyr Thr Arg Asp Gly Asp Arg Leu Asp Thr 10 Ile Cys Leu Lys Ile Tyr Gly Lys Thr Gly Lys Thr Thr Glu Glu Val 20 Leu Tyr Gln Val Ala Asn Tyr Gly Val Val Asp Met Cys Ala Val Phe 40 Pro Ala Gly Lys Glu Ile Val Leu Pro Glu Ile Ser Ser Glu Pro Ile

Val Glu Ala Thr Gln Leu Trp Glu

<210> 6442 <211> 103 <212> PRT <213> Enterobacter cloacae

<400> 6442 Arg Ser Val Arg Ala Ala Phe Gln Tyr Asp Tyr Ser Trp Asn Lys Ser 10 Met Ala Arg Ile Ser Gly Ile Tyr Ala Asn Gly Phe Gly Glu Pro Val 25 Ala Gly Val Cys Ile Leu Leu Thr Ala Arg Ala Thr Ser Ser Gly Val 40 Val Met Ala Thr Thr Ala Asn Gln Val Thr Gly Glu Asp Gly Ser Tyr 55 Gly Phe Asp Leu Arg Pro Gly Val Tyr Val Val Thr Ala Asn Gly Leu 70 75

Tyr Leu Gly Val Ile Thr Val Ser Asp Asp Ser Gln Asp Gly Thr Leu

Asn Asp Tyr Leu Val Ile

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<210> 6443
<211> 302
<212> PRT
<213> Enterobacter cloacae
<400> 6443
Lys Leu Val Met Val Ile Val Cys His Asn Thr Arg Gln Thr Arg Arg
Arg Phe Ile Met Ile Ala Ile Thr Gly Ala Thr Gly Gln Leu Gly Gln
                                25
His Val Ile Glu Glu Leu Leu Lys Thr Val Pro Ala Ser Gln Ile Val
                            40
Ala Ile Val Arg Asn Leu Ala Lys Ala Glu Ala Leu Arg Gln Gln Gly
                        55
Val Val Val Arg Gln Ala Asp Tyr Thr Asp Glu Ala Ala Phe Thr Thr
                                        75
                    70
Ala Leu Asn Gly Val Asp Lys Leu Leu Leu Ile Ser Ser Ser Glu Val
                                    90
                85
Gly Gln Arg Ala Val Gln His Gln Asn Val Ile Asn Ala Ala Lys Ala
            100
                                105
Ala Gly Val Lys Phe Ile Ala Tyr Thr Ser Leu Leu His Ala Asp Lys
                            120
Ser Pro Leu Gly Leu His Val Glu His Val Glu Thr Glu Asn Ala Leu
                        135
                                             140
Ala Ala Ser Gly Val Pro Tyr Ala Leu Leu Arg Asn Gly Trp Tyr Thr
                  150
                                        155
Glu Asn Tyr Leu Ala Ser Ala Pro Pro Ala Leu Glu His Gly Val Phe
                                    170
Met Gly Ala Ala Gly Glu Gly Lys Ile Ala Ser Ala Thr Arg Ala Asp
                                185
Tyr Ala Ala Ala Ala Lys Val Ile Ser Glu Glu Gly His Ala Gly
                            200
                                                 205
Lys Val Tyr Glu Leu Ala Gly Asp Asn Ala Trp Thr Leu Ser Glu Leu
                        215
Ala Ala Glu Leu Ser Lys Gln Ser Gly Lys Pro Val Thr Tyr Gln Asn
                    230
                                        235
Leu Ser Glu Ala Asp Phe Ala Ala Ala Leu Lys Gly Val Gly Leu Pro
                245
                                    250
Ala Gly Leu Ala Glu Met Leu Ala Asp Ser Asp Thr Gly Ala Ser Lys
                                265
Gly Gly Leu Phe Asp Asp Ser His Thr Leu Ser Lys Leu Ile Gly Arg
                            280
Pro Thr Thr Pro Leu Ala Glu Ser Val Lys Ala Ile Leu
                        295
<210> 6444
<211> 281
<212> PRT
<213> Enterobacter cloacae
<400> 6444
Pro Thr Arg Arg Leu Thr Val Gln Gly Val Pro Glu Gln Phe Thr Asp
                                    10
Glu Arg Asp Ser Ala Arg Phe Arg His Leu Ala Gln Leu Pro Gly Leu
                                25
Glu Leu Tyr His Ala His Ile Ser Asp Tyr Ala Phe Glu Pro His Thr
                            40
His Glu Ala Phe Gly Ile Gly Thr Ile Glu Thr Gly Ala Glu Arg Phe
```

Arg Tyr Arg Gly Thr Gln His Leu Ala Ala Glu Lys Ser Val Val Thr

```
70
                                       75
Met Asn Pro Asp Glu Ile His Thr Gly Glu Ser Ala Thr Glu Gly Gly
                85
                                    90
Trp Arg Tyr Arg Met Val Tyr Ile Glu Pro Asp Leu Leu Glu Glu Val
                                105
Thr Gly Leu Arg His Trp Trp Phe Ser Asp Val Thr Arg His Asp Pro
                            120
Leu Arg Ser Gln Gln Ile Gly Gln Leu Ile Tyr Gly Leu Trp His Thr
                        135
                                            140
Asp Asp Pro Leu Ala Gln Lys Gly Leu Leu Asp Leu Ile Gln Thr
                    150
                                        155
Phe Gln Pro Leu Ala His His Ala Pro Val Val Gln Glu Ala Thr His
                                    170
Arg Phe Glu Arg Val Arg Asp Tyr Leu His Asp Asn Tyr Met Arg Ser
                                185
Leu Thr Leu Asp Glu Leu Ala Asn Val Val Ser Leu Ser Pro Tyr His
Phe Gln Arg Gln Phe Lys Ala His Phe His Val Thr Pro His Gln Met
                        215
Leu Met Ala Ile Arg Leu Trp Arg Ala Lys Ala Phe Leu Thr His Gly
                    230
                                        235
Met Pro Ala Ala Glu Val Ala Ala Ala Thr Gly Leu Thr Asp Gln Ser
                245
                                    250
His Leu Thr Arg Ala Phe Thr Arg Arg Tyr Gly Ile Thr Pro Val Arg
                                265
Tyr Gln Lys Gln Val Met Pro Arg
       275
<210> 6445
<211> 328
<212> PRT
<213> Enterobacter cloacae
<400> 6445
Ile Lys Met Asp Gly Lys Met Ile Ser Gly Val Leu Tyr Ala Leu Leu
                                    10
Ala Gly Leu Met Trp Gly Leu Ile Phe Val Gly Pro Leu Ile Val Pro
                                25
Glu Tyr Pro Ala Ile Leu Gln Ser Thr Gly Arg Tyr Leu Ala Leu Gly
                            40
Leu Ile Ala Val Pro Leu Ala Trp Leu Gly Arg Thr Arg Leu Arg Gln
                        55
                                            60
Leu Gly Arg Gln Asp Trp Leu Thr Ala Leu Ala Leu Thr Met Gly
                    70
                                        75
Asn Leu Ile Tyr Tyr Val Cys Leu Ala Ser Ala Ile Gln Arg Thr Gly
                                    90
Ala Pro Val Ser Thr Met Ile Ile Gly Thr Leu Pro Val Val Ile Pro
                                105
Val Phe Ala Asn Leu Leu Tyr Ser Gln Arg Asp Gly Lys Leu Ala Trp
                            120
Ser Lys Met Ala Pro Ala Leu Val Cys Ile Ala Val Gly Leu Val Cys
                        135
                                            140
Val Asn Ile Ala Glu Leu Arg His Gly Leu Glu Asn Phe Ser Val Trp
                                        155
                    1.50
Arg Tyr Gly Ser Gly Ile Phe Leu Ala Phe Ile Ser Val Val Cys Trp
                                    170
                165
Ala Trp Tyr Ala Leu Arg Asn Ala Arg Trp Leu Arg Glu Asn Pro Asp
```

185 Lys His Pro Met Met Trp Ala Thr Ala Gln Ala Leu Val Thr Leu Pro 200 Val Ser Leu Leu Gly Tyr Val Gly Ala Cys Val Trp Leu Gly Ser Gln

```
215
                                           220
Gln Pro Ala Phe Thr Leu Pro Phe Gly Pro Arg Pro Trp Val Phe Val
        230
                               235
Gly Leu Met Val Ala Ile Ala Val Leu Cys Ser Trp Val Gly Ala Leu
                                  250
               245
Cys Trp Asn Ile Ala Ser Gln Lys Leu Pro Thr Val Ile Leu Gly Pro
                               265
Leu Ile Val Phe Glu Thr Leu Ala Gly Leu Leu Tyr Thr Phe Leu Met
                           280
Arg Gln Ser Val Pro Pro Leu Leu Thr Ala Cys Gly Ile Ala Leu Leu
                       295
Val Val Gly Val Val Ile Ala Val Arg Ala Lys Pro Glu Lys Pro Met
                    310
Val Val Pro Ala Ser Glu Gly
                325
<210> 6446
<211> 233
<212> PRT
<213> Enterobacter cloacae
<400> 6446
Asn Ala Ser Tyr Ile Ser Asp Asp Glu Val Thr Ala Met Ala Phe Arg
                                    10
Asp Gln Pro Leu Gly Glu Leu Ala Leu Ser Ile Pro Arg Ala Ser Ala
            20
                                25
Leu Phe Arg Lys Tyr Asp Met Asp Tyr Cys Cys Gly Gly Lys Gln Thr
                            40
Leu Ala Arg Ala Ala Ser Arg Lys Glu Leu Asp Val Glu Ala Ile Glu
                       55
Ala Glu Leu Ala Gln Leu Ala Glu Gln Pro Val Asp Lys Asp Trp Arg
                    70
                                        75
Thr Ala Pro Leu Ala Glu Ile Ile Asp His Ile Ile Val Arg Tyr His
                                    90
Asp Arg His Arg Glu Gln Leu Pro Glu Leu Ile Leu Gln Ala Thr Lys
                                105
Val Glu Arg Val His Ala Asp Lys Pro Ser Val Pro Arg Gly Leu Ala
                           120
Lys Tyr Leu Thr Met Leu His Glu Glu Leu Ser Ser His Met Met Lys
                        135
                                            140
Glu Glu Gln Ile Leu Phe Pro Met Ile Lys Gln Gly Met Gly Ser Gln
                    150
                                        155
Ala Met Gly Pro Ile Ser Val Met Glu Ser Glu His Asp Asp Ala Gly
                                    170
               165
Glu Leu Leu Glu Val Ile Lys His Thr Thr Asp Asn Val Thr Pro Pro
           180
                               185
                                                    190
Pro Glu Ala Cys Thr Thr Trp Lys Ala Met Tyr Asn Gly Ile Asn Glu
                           200
                                               205
Met Ile Asp Asp Leu Met Glu His Ile Ser Leu Glu Asn Asn Val Leu
                       215
Phe Pro Arg Ala Leu Ala Gly Glu
                   230
<210> 6447
<211> 139
<212> PRT
<213> Enterobacter cloacae
<400> 6447
Leu Leu Val Ser Thr Tyr Lys Lys Val Ser Met Lys Thr Thr Ile Pro
```

Thr Leu Ser Glu Gln Met Arg Asp Gly Asn Leu Phe Ala Glu Gln Cys 25 Pro Ser Arg Glu Val Leu Lys His Val Thr Ser Arg Trp Gly Val Leu 40 Ile Leu Val Ala Leu Arg Gln Gly Thr His Arg Phe Ser Asp Leu Arg 55 Arg Lys Met Gly Gly Val Ser Glu Lys Met Leu Ala Gln Ser Leu Gln 70 75 Ala Leu Glu His Asp Gly Phe Val Asp Arg Val Ser Tyr Pro Val Val 85 90 Pro Pro His Val Glu Tyr Ser Leu Thr Pro Leu Gly Arg Glu Val Ser 105 100 Glu Lys Val Ala Ala Leu Ala Asp Trp Ile Glu Val Asn Thr Pro Gln 120 Val Met Ala Asn Arg Asp Glu Arg Ala Ala 130 135

<210> 6448

<211> 554

<212> PRT

<213> Enterobacter cloacae

<400> 6448 Lys Arg Gln Arg Met Phe Lys Arg Ile Lys Val Ile Thr Leu Leu Ile 10 Ser Val Leu Leu Val Leu Gly Ile Met Gln Leu Ile Ser Ala Gly Ile 20 Phe Ile Asn Ala Leu Asn Asn Asp Lys Glu Asn Phe Thr Val Ser Gln 40 Leu Ser Ser Gln Asn Val Ala Glu Phe Thr Asp Ala Trp Ile Ser Leu 60 Asn Gln Ala Arg Val Thr Leu Asn Arg Gly Met Leu Arg Leu Gln Ser 70 Ser Met Ala Ser Gln Ile Asn Gly Gly Gln Leu Asn Glu Leu Val Asn 90 Thr Ala Lys Asn Leu Leu Ala Asp Ala Gln Thr His Tyr Asp Lys Tyr 105 110 Tyr Ala Leu Pro Glu Thr Pro Gly Met Asp Glu His Leu Ala Asp Arg 120 Leu Glu Glu Gln Tyr Arg Val Tyr Ser Ala Thr Leu Thr Gln Met Asn 135 Val Leu Leu Gly Gln Gly Asn Leu Glu Asp Met Phe Lys Gln Asn Ala 150 Glu Gln Lys Gln Thr Ala Met Gln Lys Val Tyr Arg Glu Trp Arg Glu 165 170 Ala Gln Ala Ala Leu Thr Ala Lys Gly Ile Gln Asp Asn Glu Ser Asp 185 180 Tyr Lys Arg Ile Leu Trp Ile Leu Ser Ala Val Met Leu Leu Val Ile 200 195 Ala Val Ile Ile Ser Ser Trp Ile Ala Met Arg Arg Val Leu Leu Leu 215 220 Pro Leu Glu Glu Val Ile Asn His Ile Arg Ala Ile Ala Ala Gly Asp 230 235 Leu Thr Gln Pro Ile Gln Ala Glu Gly Lys Asn Glu Met Ala Ile Leu 250 245 Ala Arg Asn Val Gln Glu Met Gln Thr Ala Leu Ala Asn Thr Val Gly 265 Val Val Arg Glu Gly Ala Asp Thr Ile Tyr Thr Gly Ala Gly Glu Ile 280 Ser Ala Gly Ser Asn Asp Leu Ser Ser Arg Thr Glu Gln Gln Ala Ala 295 300

```
Ser Leu Glu Glu Thr Ala Ala Ser Met Glu Gln Leu Thr Ala Thr Val
                    310
                                        315
Lys Gln Asn Ala Asp Asn Ala Arg Gln Ala Ser Arg Leu Ala Leu Asp
                325
                                    330
Ala Ser Ser Thr Ala Lys Lys Gly Gly Asn Val Val Glu Gly Val Val
            340
                                345
Arg Thr Met Asp Glu Ile Ala Thr Ser Ser Ser Lys Ile Ala Gln Ile
                            360
                                                365
Thr Asn Val Ile Asp Gly Ile Ala Phe Gln Thr Asn Ile Leu Ala Leu
                        375
Asn Ala Ala Val Glu Ala Ala Arg Ala Gly Glu Gln Gly Arg Gly Phe
                                        395
                    390
Ala Val Val Ala Gly Glu Val Arg Thr Leu Ala Gln Arg Ser Ala Gln
                405
                                    410
Ala Ala Lys Glu Ile Lys Ala Leu Ile Asp Asp Ser Gly Glu Arg Val
                                425
            420
Asn Ala Gly Ser Gln Leu Val Asn Glu Ala Gly Ala Thr Met Ala Glu
        435
                            440
Ile Val Asn Ala Val Thr Arg Val Thr Asp Ile Met Gly Glu Ile Ala
                                             460
    450
                        455
Ser Ala Ser Asp Glu Gln Ser Arg Gly Ile Asp Gln Val Gly Gln Ala
                    470
                                         475
Val Ala Glu Met Asp Arg Val Thr Gln Gln Asn Ala Ser Leu Val Glu
                                    490
                485
Glu Ser Ala Ala Ala Ala Ala Leu Glu Asp Gln Ala Ala Arg Leu
                                505
            500
Asn Asp Ala Val Ala Val Phe Lys Ile Thr Arg Asn Gln Ala Val Lys
        515
                            520
                                                 525
Ala Ala Pro Val Lys Thr Tyr Ala Pro Lys Ala Gln Pro Val Ala Ala
                        535
                                             540
Ala Ser Glu Ala Asn Trp Glu Thr Phe
                    550
<210> 6449
<211> 240
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<212> PRT

<213> Enterobacter cloacae

## <400> 6449

Asp Asp Glu His Met Asp Gly Trp Gln Arg Ala Phe Val Leu His Ser 10 Arg Pro Trp Ser Glu Thr Ser Leu Met Leu Asp Val Phe Thr Glu Glu Ser Gly Arg Val Arg Leu Val Ala Lys Gly Ala Arg Ser Arg Arg Ser Asn Leu Lys Gly Ala Leu Gln Pro Phe Thr Pro Leu Leu Val Arg Phe Gly Gly Arg Gly Glu Val Lys Thr Leu Arg Ser Ala Glu Ala Val Ser Leu Ala Leu Pro Leu Ser Gly Ile Thr Leu Tyr Ser Gly Leu Tyr Val 85 Asn Glu Leu Ile Ser Arg Val Leu Glu His Glu Thr Arg Phe Ser Glu 100 105 Leu Phe Phe Asp Tyr Leu His Cys Ile Gln Ser Leu Ala Gly Ala Thr 120 Gly Thr Pro Glu Pro Val Leu Arg Arg Phe Glu Leu Ala Leu Leu Gly 135 140 His Leu Gly Tyr Gly Val Asp Phe Leu His Cys Ala Gly Ser Gly Asp 150 155 Glu Val Glu Asp Thr Met Thr Tyr Arg Tyr Arg Glu Glu Lys Gly Phe 170

```
Ile Ala Ser Val Val Val Asp Asn Ser Thr Phe Thr Gly Arg Gln Leu
                               185
           180
Arg Ala Leu Tyr Glu Arg Glu Phe Pro Asp Ala Asp Thr Leu Arg Ala
                                                205
                            200
       195
Ala Lys Arg Phe Thr Arg Ile Ala Leu Lys Pro Tyr Leu Gly Gly Lys
                       215
                                            220
Pro Leu Lys Ser Arg Glu Leu Phe Arg Gln Phe Met Pro Lys Arg
                    230
                                        235
<210> 6450
<211> 251
<212> PRT
<213> Enterobacter cloacae
<400> 6450
Thr Lys Ile Pro Arg Ile Val Met Ala Glu Leu Leu Gly Val Asn
                                    10
Ile Asp His Ile Ala Thr Leu Arg Asn Ala Arg Gly Thr Ala Tyr Pro
                                25
            20
Asp Pro Val Gln Ala Ala Phe Ile Ala Glu Gln Ala Gly Ala Asp Gly
                                                 45
        35
                            40
Ile Thr Val His Leu Arg Glu Asp Arg Arg His Ile Thr Asp Arg Asp
                    . 55
Val Arg Ile Leu Arg Gln Thr Leu Asp Asn Arg Met Asn Leu Glu Met
                    70
                                        75
Ala Val Thr Glu Glu Met Leu Thr Ile Ala Cys Asp Thr Lys Pro His
                                    90
                85
Phe Cys Cys Leu Val Pro Glu Lys Arg Gln Glu Val Thr Thr Glu Gly
                                105
                                                     110
            100
Gly Leu Asp Val Ala Gly Gln Leu Asp Lys Met Arg Asp Ala Cys Lys
                            120
Arg Leu Ala Asp Ala Gly Ile Leu Val Ser Leu Phe Ile Asp Ala Asp
                        135
                                            140
Phe Thr Gln Ile Lys Ala Ala Ala Asp Val Gly Ala Pro Tyr Ile Glu
                                        155
                    150
Ile His Thr Gly Cys Tyr Ala Asp Ala Glu Asn Asp Ala Ala Gln Ala
                165
                                    170
Lys Glu Leu Glu Arg Ile Ala Lys Ala Ala Thr Tyr Ala Ala Ser Leu
                                185
Gly Leu Lys Val Asn Ala Gly His Gly Leu Thr Tyr His Asn Val Lys
                            200
Ala Ile Ala Ala Leu Pro Glu Met His Glu Leu Asn Ile Gly His Ala
                        215
                                            220
Ile Ile Gly Arg Ala Val Met Ser Gly Leu Lys Asp Ala Val Ser Glu
                    230
                                        235
Met Lys Arg Leu Met Leu Glu Ala Arg Gln
                245
<210> 6451
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6451
Arg Arg Leu Asn Val Asp Thr Ile Ala Gly Ile Val Arg Lys His Leu
                                    10
Pro Glu Ala Thr His His Phe Pro Glu Asp Tyr Ile Thr Asp Arg Ser
                                25
Gln Arg Phe Met Ala Ser Glu Ile Ile Arg Glu Lys Leu Met Arg Phe
                            40
```

Leu Gly Ala Glu Leu Pro Tyr Ser Val Thr Val Glu Ile Glu Arg Phe

55 Gln Ser Asn Glu Arg Gly Gly Tyr Asp Ile Asn Gly Leu Ile Leu Val 70 75 Glu Arg Glu Gly Gln Lys Lys Met Val Ile Gly Asn Lys Gly Ala Lys 85 90 Ile Lys Thr Ile Gly Ile Glu Ala Arg Lys Asp Met Gln Asp Met Phe 105 Glu Ala Pro Val His Leu Glu Leu Trp Val Lys Val Lys Ser Gly Trp 120 Ala Asp Asp Glu Arg Ala Leu Arg Ser Leu Gly Tyr Gly Glu Asp Gln 145 <210> 6452 <211> 312 <212> PRT <213> Enterobacter cloacae <400> 6452 Cys Val Tyr Tyr Glu Leu Lys Ile Pro Glu Val Asn Asn Met Asn Leu 10 Gly Ser Leu Val Ser Glu Thr Arg Asn Pro Gln Thr Met Asp Leu Asp 25 Ala Leu Ser Thr Leu Glu Leu Val Asn Arg Phe Asn Gln Gln Asp Thr 40 Leu Val Ala Leu Ala Val Lys Glu Thr Leu Pro Glu Val Ala Lys Ala 55 Val Asp Ala Ala Ala Asp Ala Leu Lys Ala Gly Gly Arg Ile Ile Tyr 70 75 Met Gly Ala Gly Thr Ser Gly Arg Leu Gly Val Leu Asp Ala Ser Glu 90 Cys Pro Pro Thr Phe Gly Val Pro His Gly Leu Val Val Gly Leu Ile 105 Ala Gly Gly Pro Gly Ala Leu Leu Lys Ala Val Glu Gly Ala Glu Asp 120 Asn Lys Gln Leu Gly Glu Asp Asp Leu Arg Ala Leu Asn Leu Thr Ala 135 140 Gln Asp Leu Val Val Gly Leu Ala Ala Ser Gly Arg Thr Pro Tyr Val 150 155 Ile Gly Gly Leu Glu Tyr Ala Arg Gln Thr Gly Cys Thr Thr Val Ala 170 165 Ile Ser Cys Asn Pro Gly Ser Pro Ile Ala Gln Val Ala Ala Ile Ala 185 190 Ile Ser Pro Val Val Gly Pro Glu Ala Leu Thr Gly Ser Thr Arg Leu 200 205 Lys Ser Gly Thr Ala Gln Lys Leu Val Leu Asn Met Ile Ser Thr Gly 215 220 Ala Met Val Lys Phe Gly Lys Val Tyr Gln Asn Leu Met Val Asp Met 230 235 Gln Ala Thr Asn Val Lys Leu Val Asp Arg Ala Cys Arg Met Val Met 245 250 Glu Ala Thr Gly Ala Ser Arg Glu Glu Ala Glu Lys Val Leu Gln Gln 265 Thr Asp His Asp Val Lys Pro Ala Ile Leu Met Ile Leu Thr Gly Leu 280 Asp Ala Ala Ala Arg Ala Arg Leu Glu Ala His His Gly Phe Leu Arg Ala Ala Leu Glu His Gln

<210> 6453 <211> 458

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<212> PRT
<213> Enterobacter cloacae
<400> 6453
Glu Ala Phe Met Asp Lys Thr Ala Ala Leu Ala Ser Asp Ile Leu Leu
Gly Ile Gly Gly Glu Lys Asn Ile Gln Arg Leu Glu Asn Cys Met Thr
                                25
Arg Val Arg Val Glu Val Tyr Asn Asp Glu Lys Leu Asp Leu Thr Arg
Leu Lys Gln Leu Pro Gly Val Ser Gly Tyr Val Lys Gln Gly Gln Gln
                        55
His Gln Leu Ile Val Gly Pro Gly Lys Ala Ala Gln Val Val Asp Ala
                                        75
Met Arg Ala Leu Met Thr Gly Gly Glu Thr Ala Pro Ala Phe Asp Asp
                                    90
Ala Glu Arg Thr Lys Ala Gln Ala Lys Ala Lys Tyr Lys Ala Pro Met
            100
                                105
Ser Asp Ala Leu Arg Gln Leu Ala Asn Val Phe Ile Pro Leu Ile Pro
                            120
                                                125
Ala Phe Ile Ala Ser Gly Leu Ile Thr Gly Ile Ile Asn Ile Leu Lys
                        135
                                            140
Arg Pro Asp Ile Val Gly Asn Phe Ala Thr Gln Tyr Pro Asn Leu Leu
                    150
                                        155
Gly Ile Leu Ala Ile Phe Gly Ser Ala Val Phe Ala Ile Met Asn Ile
                165
                                    170
Leu Val Gly Val Asn Thr Ala Lys Val Phe Gly Gly Ser Leu Ala Met
            180
                                185
Gly Gly Val Met Ala Gly Ile Leu Ser Ser Pro Gln Leu Ala Gln Ile
                            200
Thr Leu Phe Gly Glu Ala Leu Gln Pro Gly Arg Gly Gly Val Ile Ala
                        215
                                             220
Val Leu Leu Val Val Ile Leu Met Cys Trp Ile Glu Lys Lys Leu Arg
                                        235
                    230
Glu Leu Leu Pro Gly Ser Ile Glu Leu Ile Leu Asn Pro Leu Leu Thr
                                    250
                245
Thr Leu Ile Thr Gly Ser Val Ala Ile Val Ala Leu Gln Pro Leu Gly
                                265
Gly Ala Ile Ser Glu Ala Ile Ala His Gly Ala Ser Leu Ala Ile Asp
                            280
Arg Gly Gly Leu Leu Val Gly Ala Val Leu Ser Gly Thr Phe Leu Pro
                        295
                                            300
Leu Val Leu Thr Gly Leu His Gln Gly Leu Val Pro Ile His Val Glu
                    310
                                        315
Leu Val Gln Ala His Gly Tyr Asn Ala Leu Leu Pro Ile Leu Ser Met
                                    330
                325
Ala Gly Val Gly Gln Val Gly Ala Ala Ile Ala Val Leu Met Lys Thr
                                345
            340 .
Arg Asn Ala Arg Leu Lys Lys Val Ile Lys Gly Ala Leu Pro Val Gly
                            360
                                                365
Leu Leu Gly Ile Gly Glu Pro Leu Ile Phe Gly Val Thr Leu Pro Leu
                        375
                                            380
Gly Lys Pro Phe Leu Ala Ala Cys Leu Gly Gly Ala Val Gly Gly Ala
                    390
                                        395
Leu Ile Ser Tyr Trp Lys Val Ala Thr Val Ile Thr Phe Gly Ile Ser
                                    410
Gly Leu Pro Leu Ala Leu Thr Ile Val Thr Gly Lys Val Met Leu Tyr
                                425
```

Leu Leu Gly Tyr Leu Val Ala Val Ile Ala Gly Phe Leu Phe Thr Trp

```
445
Leu Leu Gly Phe Asn Asp Pro Glu Glu
    450
<210> 6454
<211> 213
<212> PRT
<213> Enterobacter cloacae
<400> 6454
Gly Leu Ala Ser His Glu Arg Arg Val Val Phe Phe Asp Leu Asp Gly
Thr Leu His Gln Gln Asp Met Phe Gly Thr Phe Met Arg Tyr Leu Leu
                                25
            20
Arg Arg Gln Pro Leu Asn Ala Leu Leu Val Leu Pro Leu Pro Val
                                                4.5
Ile Gly Ile Ala Leu Leu Val Lys Gly Arg Ala Ala Arg Trp Pro Met
Ser Leu Leu Trp Gly Cys Thr Phe Gly His Ser Glu Ala Arg Leu
                    70
Lys Gln Leu Glu Gln Asp Phe Ala His Trp Phe Arg Gly His Val Ala
                                    90
Ala Phe Pro Val Val Gln Ala Arg Leu Thr Ser Tyr Leu Asp Ala Asn
                                105
Asp Ala Asp Ile Trp Leu Ile Thr Gly Ser Pro Gln Thr Leu Val Glu
        115
                            120
Gln Val Tyr Phe Asp Thr Pro Trp Leu Pro Arg Val Asn Leu Ile Ala
                        135
Thr Gln Ile Ala Arg Gly Tyr Gly Gly Trp Val Leu Thr Leu Arg Cys
                    150
                                        155
Leu Gly His Glu Lys Val Val Gln Leu Glu Lys Arg Ile Gly Thr Pro
                                    170
                165
Leu Arg Leu Tyr Ser Gly Tyr Ser Asp Ser Lys Gln Asp Asn Pro Leu
                                185
            180
Leu Tyr Phe Cys Gln His Arg Trp Arg Val Thr Pro Leu Gly Glu Leu
       195
                            200
Gln Gln Leu Glu
    210
<210> 6455
<211> 188
<212> PRT
<213> Enterobacter cloacae
<400> 6455
Ser Tyr Leu Tyr Arg Leu Cys Ile Met Pro Pro Ala Phe Arg Leu Glu
                                    10
Tyr Gln Pro Leu Ser Asn Pro Glu His Asn His Glu Tyr Trp Met Arg
                                25
His Ala Leu Ala Leu Ala Gln Arg Ala Trp Glu Glu Gly Glu Val Pro
                            40
                                                45
Val Gly Ala Val Leu Val His Asn Asn Gln Val Ile Gly Glu Gly Trp
Asn Arg Pro Ile Gly Arg His Asp Pro Thr Ala His Ala Glu Ile Met
Ala Leu Arg Gln Gly Gly Leu Val Leu Gln Asn Tyr Arg Leu Leu Asp
Thr Thr Leu Tyr Val Thr Leu Glu Pro Cys Val Met Cys Ser Gly Ala
                                105
Met Val His Ser Arg Ile Gly Thr Leu Val Phe Gly Ala Arg Asp Glu
```

<210> 6456 <211> 181 <212> PRT <213> Enterobacter cloacae

<400> 6456 Arq Arq Ser Arg Pro Asp Leu Ser Gln Arg Lys Ser His Arg Cys Pro 10 Ala Gly Asn Ala Arg Ala Glu His Arg Pro Arg Tyr His Trp Pro Cys Gly Asp Glu Arg Ser Glu Arg Arg Gly Phe Arg Asp Glu Ala Ser Asp 40 Ala Gly Ser Ala Ser Val Met Ala Ile Leu Gly Leu Gly Thr Asp Ile 55 Val Glu Thr Ala Arg Ile Glu Ala Val Ile Ala Arg Ser Gly Asp Arg 70 Leu Ala Arq Arq Val Leu Ser Asp Asn Glu Trp Ala Ile Trp Glu Ala 90 His Gln Gln Pro Val Arg Phe Leu Ala Lys Arg Phe Ala Val Lys Glu 105 Ala Ala Ala Lys Ala Phe Gly Thr Gly Ile Arg Asn Gly Leu Ala Phe 120 125 Asn Gln Phe Glu Val Phe Asn Asp Glu Leu Gly Lys Pro Arg Leu Arg 135 Leu Trp Gly Glu Ala Leu Lys Leu Ala Glu Lys Leu Gly Val Ala His

145 150 155 160

Met His Val Thr Leu Ala Asp Glu Arg His Tyr Ala Cys Ala Thr Val

165 170 175

Ile Ile Glu Gly 180

<210> 6457 <211> 96 <212> PRT <213> Enterobacter cloacae

<210> 6458 <211> 297

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<212> PRT
<213> Enterobacter cloacae
<400> 6458
Phe Val Phe Ala Arq Val Ile Thr Phe Ser Pro Gly Asp Arg Met Asn
                                    10
Cys Leu Ile Arg Ile Arg Gln Arg Tyr Ala Gly Phe Ala Gln Ser Asp
                                25
Lys Lys Leu Ala Asp Tyr Leu Leu Ser Gln Pro Asp Arg Ala Arg His
                            40
Leu Ser Ser Gln Gln Leu Ala Gly Glu Ala Gly Val Ser Gln Ser Ser
                        55
Val Val Lys Phe Ala Gln Lys Ile Gly Tyr Lys Gly Phe Pro Ala Leu
Lys Leu Ala Ile Ser Glu Ala Leu Val Ser Asn Pro Asn Pro Gln Ser
Met Pro Val His Asn Gln Ile Arg Gly Asp Asp Pro Met Arg Leu Val
                                105
Gly Glu Lys Leu Ile Lys Glu Asn Val Ala Ala Met His Ala Thr Leu
                            120
                                                125
Asp Val Asn Thr Glu Glu Lys Leu Glu Ser Val Ala Met Leu Arg
                        135
                                            140
Asp Ala Arg Arg Ile Val Leu Thr Gly Ile Gly Ala Ser Gly Leu Val
                                        155
                    150
Ala Arg Asn Phe Gly Trp Lys Leu Thr Lys Ile Gly Tyr Asn Ala Ile
                                    170
                165
Val Glu Gln Asp Met His Ala Leu Leu Ala Thr Val Gln Ala Met Asp
            180
                                185
Pro Asp Asp Leu Leu Ala Ile Ser Tyr Ser Gly Glu Arg Arg Glu
                            200
                                                205
Ile Asn Met Ala Thr Asp Glu Ala Leu Arg Val Gly Gly Lys Ile Leu
                        215
                                            220
Ala Ile Thr Gly Phe Ser Pro Asn Ala Leu Gln Gln Arg Ala Thr Arg
                    230
                                        235
Cys Leu Tyr Thr Ile Ala Glu Glu Gln Ala Thr Arg Ser Ala Ala Ile
                                    250
                245
Ser Ser Thr Ser Ala Gln Met Met Leu Thr Asp Leu Leu Phe Met Ala
            260
                                265
Leu Val Gln Gln Asp Leu Glu Arg Ala Pro Glu Arg Ile Arg His Ser
                            280
Glu Glu Leu Val Lys Lys Leu Val
    290
                        295
<210> 6459
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 6459
Ala Thr Val Arg Glu Lys Ile Glu Ser Leu Lys Lys Asp Pro Val Arg
Leu Glu Glu Lys Tyr Leu Gly His Gly Asp Asp Phe Asp Tyr Val Asp
                                25
Thr Arg Thr Phe Leu Arg Ala Val Asp Ser Val Leu Pro Asp Leu Gln
                            40
Pro Leu Phe Glu Lys Tyr Ala Gln Glu Ile Asp Trp Lys Leu Leu Ala
```

70

Ala Ile Ser Tyr Gln Glu Ser His Trp Asp Ala Gln Ala Thr Ser Pro

Thr Gly Val Arg Gly Leu Met Met Leu Thr Lys Asn Thr Ala Gln Ser

75

```
Leu Gly Ile Ser Asp Arg Thr Asp Ala Glu Gln Ser Ile Ser Gly Gly
                                105
Ala Gln Tyr Leu Gln Asp Met Met Ala Lys Val Pro Glu Thr Val Pro
                            120
                                                 125
Glu Gly Glu Arg Ile Trp Phe Ala Leu Ala Ala Tyr Asn Met Gly Tyr
                        135
                                            140
Ala His Met Leu Asp Ala Arg Ala Leu Thr Ala Lys Thr Lys Gly Asn
                    150
                                        155
Pro Asp Ser Trp Ser Asp Val Lys Gln Arg Leu Pro Leu Leu Ser Gln
                165
                                    170
Lys Gln Trp Tyr Gln Lys Leu Thr Tyr Gly Tyr Ala Arg Gly His Glu
            180
                                185
                                                     190
Ala Tyr Ala Tyr Val Glu Asn Ile Arg Lys Tyr Gln Ile Ser Leu Val
                            200
Gly Tyr Leu Leu Glu Lys Glu Lys Glu Ala Ala Glu Ala Gln Gln Leu
                        215
                                             220
Ala Glu Ser Tyr Pro Val Val Ala Pro Glu Glu Leu Asn His Pro Ala
                    230
Val Ser Ile Leu Pro Phe Val Ala Phe Ser Ala Ala Asp Ala Phe Glu
                                    250
                245
Lys Ser His Leu Thr Asp Pro Asn Ile Leu Val Gln Val Pro Arg Arg
                                265
<210> 6460
```

```
<210> 6460
<211> 102
<212> PRT
<213> Enterobacter cloacae
```

<400> 6460 Ala Tyr Asn Ala Arg Pro Val Cys Asp Val Ser Glu Asn Phe Leu Met 10 Ala Leu Leu Ile Thr Lys Lys Cys Ile Asn Cys Asp Met Cys Glu Pro 25 Glu Cys Pro Asn Glu Ala Ile Ser Met Gly Asp Ser Ile Tyr Glu Ile 40 Asn Ser Asp Arg Cys Thr Glu Cys Ile Gly His Tyr Glu Thr Pro Thr 55 60 Cys Gln Lys Val Cys Pro Ile Pro Asn Thr Ile Leu Lys Asp Pro Ala 70 75 His Val Glu Asn Glu Glu Gln Leu Trp Asp Lys Phe Val Leu Met His 85 90 His Ala Asp Lys Ile 100 .

<210> 6461 <211> 516 <212> PRT <213> Enterobacter cloacae

65					70					75					80
Asn	Val	Ile	Gly	Glu 85	Pro	Glu	Val	Phe	Tyr 90	Cys	Lys	Pro	Ala	Asp 95	Asp
Tyr	Leu	Pro	Gln 100	Pro	Gly	Ala	Val	Met 105	Val	Thr	Gly	Ile	Thr 110	Pro	Gln
Glu	Ala	Arg 115	Asp	Lys	Gly	Val	Ser 120	Glu	Ala	Glu	Phe	Ala 125	Arg	Arg	Ile
His	Asp 130	Leu	Phe	Thr	Val	Pro 135	Asn	Thr	Cys	Val	Val 140	Gly	Tyr	Asn	Asn
Ile 145	Arg	Phe	Asp	Asp	Glu 150	Val	Thr	Arg	Asn	Ile 155	Phe	Tyr	Arg	Asn	Phe 160
_	_			165					170					175	Asp
	Leu	_	180		_		_	185					190		
	Trp	195			_		200					205			
	Thr 210	_				215					220				
225	_				230					235					Ala 240
	Pro	_		245		_			250					255	_
	Met Gly		260		_			265					270		
	Ala	275					280					285			
	290	_			_	295					300				Arg
305	Arg	_			310					315					320
	Val			325					330					335	
	Thr	_	340					345					350		
His	Cys	355 Leu	Asp	Asn	Leu	Lys	360 Val	Leu	Arg	Asp	Asn	365 Pro	Gln	Val	Arg
Glu	370 Lys	Val	Val	Ala	Ile	375 Phe	Ala	Glu	Ala	Glu	380 Pro	Phe	Val	Pro	Ser
385 Glu	Asn	Val	Asp		390 Gln	Leu	Tyr	Asn		395 Phe	Phe	Ser	Asp		400 Asp
Arg	Ala	Ala		405 Asn	Ile	Val	Leu		410 Thr	Asp	Pro	Arg		415 Leu	Pro
Ala	Leu		420 Ile	Thr	Phe	Ala		425 Lys	Arg	Ile	Glu		430 Leu	Met	Phe
Asn	Tyr 450	435 Arg	Ala	Arg	Asn	Tyr 455	440 Pro	Gly	Thr	Leu	Asp 460	445 Glu	Ala	Glu	Gln
Glu 465		Trp	Leu	Gln	His 470		Arg	Ser	Val	Phe 475		Pro	Glu	Phe	Leu 480
	Ser	Tyr	Ala	Gln 485		Leu	Glu	Met	Leu 490		Gly	Gln	Tyr	Glu 495	Gly
Asn	Ala	Glu	Lys 500		Ala	Leu	Leu	Lys 505		Leu	Phe	Gln	Tyr 510		Gln
Glu	Ile	Val 515													
<210	)> 64	162													

<210> 6462 <211> 389 <212> PRT

## <213> Enterobacter cloacae

```
<400> 6462
Ser Thr Lys Trp Asp Asn Pro Ala Lys Arg Arg Val Phe Gln Pro Gly
                                    10
Ala Ile His Pro Ala Glu Asn Thr Val Gln Leu Trp Phe Ala Val Glu
                                25
Leu Glu Thr Gly Val Arg Pro Asp Lys Ser Leu Thr Pro Phe Glu Ile
                            40
Arg Leu Tyr Lys His Tyr Arg Val Val His Gly Cys Arg Ile Ala Leu
                        55
Ala Phe Val Leu Thr Phe Val Leu Val Arg Leu Leu Asp Ile Pro Glu
                    70
                                        75
Gly Thr Trp Pro Leu Ile Thr Leu Val Val Val Met Gly Pro Ile Ser
                                     90
                85
Phe Trp Gly Asn Val Val Pro Arg Ala Phe Glu Arg Ile Gly Gly Thr
            100
                                105
                                                     110
Val Leu Gly Ser Ala Leu Gly Leu Ile Ala Leu Lys Leu Glu Leu Ile
                            120
Ser Phe Pro Phe Met Leu Leu Trp Cys Ala Val Ala Met Phe Leu Cys
                        135
                                             140
Gly Trp Leu Thr Leu Gly Lys Lys Pro Tyr Gln Ala Leu Leu Ile Gly
                    150
                                        155
Ile Thr Leu Ala Val Val Gly Ala Pro Ala Gly Asp Met Thr Thr
                                     170
Ala Leu Trp Arg Ser Gly Asp Val Ile Leu Gly Ser Leu Leu Ala Met
            180
                                185
Leu Phe Thr Gly Ile Trp Pro Gln Arg Ala Phe Leu His Trp Arg Ile
                            200
Gln Met Ala Asn Tyr Val Thr Ala Phe Asn Arg Val Tyr Gln Ala Gly
                        215
                                             220
Phe Ser Pro Asn Leu Ile Glu Arg Pro Arg Leu Glu Lys His Leu Gln
                    230
                                         235
Lys Ile Leu Asn Asp Val Val Lys Met Arg Gly Leu Ile Thr Pro Ala
                245
                                     250
Ser Lys Glu Thr His Ile Gln Lys Ala Ile Phe Glu Ala Ile Gln Thr
Val Ser Arg Asn Leu Val Cys Met Leu Glu Leu Gln Ile Asn Ala His
                            280
Trp Ala Ser Arg Pro Ser His Leu Leu Met Leu Asn Ala His Thr Leu
                        295
Lys Glu Thr Gln Gln Met Thr Gln Gln Thr Leu Leu Thr Ile Ala His
                    310
                                         315
Ala Leu Tyr Glu Gly Asn Pro Gln Pro Ile Arg Ala Asn Ser Glu Arg
                325
                                     330
Leu Asn Glu Ile Val Ala Glu Leu Lys Gln Leu Met Asn Glu Arg Gln
                                345
Gly Asp Asn Val Ala Glu Thr Pro Ile His Gly Tyr Val Trp Leu Ser
                            360
Met Glu Leu Ala Arg Gln Leu Glu Leu Leu Ser Gln Leu Ile Cys Arg
    370
                        375
Ala Leu Arg Lys
385
<210> 6463
<211> 128
<212> PRT
<213> Enterobacter cloacae
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<400> 6463

Asn Gly Cys Phe Asn Glu Ser Glu Ser His Ile Ile Arg Gly Val Lys

Gly Lys Ser Thr Ser

10 Met Glu Thr Thr Lys Pro Ser Phe Gln Asp Val Leu Glu Phe Val Arg 25 Leu Phe Arg Arg Lys Asn Lys Leu Gln Arg Glu Ile Gln Asp Val Glu 40 Lys Lys Ile Arg Asp Asn Gln Lys Arg Val Leu Leu Asp Asn Leu 55 Ser Asp Tyr Ile Lys Pro Gly Met Ser Val Glu Ala Ile Gln Gly Ile Ile Ala Ser Met Lys Ser Asp Tyr Glu Asp Arg Val Asp Asp Tyr Ile 85 90 Ile Lys Asn Ala Glu Leu Ser Lys Glu Arg Arg Asp Ile Ser Lys Lys 105 Leu Lys Val Met Gly Glu Ile Lys Asn Val Asp Ala Lys Gly Glu 120 <210> 6464 <211> 310 <212> PRT <213> Enterobacter cloacae <400> 6464 Asn Arg Leu Leu Asp Val Leu Ile Ile Pro Gly Gly Ala Gly Lys Arg Arg Gly Ala Cys Pro Pro His Arg Ala Lys Leu Tyr Lys Thr Arg Ser 20 Val Met Ser Tyr Thr Val Gln Lys Leu Glu Ser Asp Val Asn Ile Gln Ile Val Asp Arg Thr Gly His Arg Ala Arg Phe Thr Arg Thr Gly Gln Met Leu Leu Glu Lys Gly Arg Asp Val Leu His Thr Val Arg Glu Leu Asp Lys Gln Ala Val Lys Phe His Gln Val Trp Glu Asn Glu Leu Val 90 Ile Gly Val Asp Asp Thr Phe Pro Leu Ser Val Leu Thr Pro Leu Ile 105 Glu Ala Phe Tyr Gln Arg His Ser Val Thr Arg Leu Val Phe Ile Asn 120 Gly Val Leu Gly Gly Phe Trp Glu Ala Leu Thr Gln Gly Arg Ala Asp 135 140 Ile Ile Val Gly Ala Val His Glu Pro Pro Gln Leu Ser Glu Phe Gly 150 155 Phe Ala Arg Leu Gly Val Leu Glu Gln Val Phe Ala Val Ala Pro His 170 165 His Pro Leu Ala Asn Glu Pro Glu Pro Val Thr Arg Arg Val Ile Lys 180 185 190 Asn Tyr Arg Ala Ile Val Val Gly Asp Ser Ser Arg Pro Glu Cys Gly 200 205 Ile Ser Ser Gln Met Leu Asp Glu Gln Glu Ala Ile Thr Val Phe Asp 215 220 Phe Lys Thr Lys Leu Glu Leu Gln Ile Ser Gly Leu Gly Cys Gly Tyr 230 235 Leu Pro Arg Tyr Leu Ala Gln Arg Phe Ile Asp Ser Gly Ala Leu Val 245 250 Glu Lys Gln Val Leu Ala Gln Ser Ser Asn Glu Ser Val Trp Val Gly 265 Trp Asn Glu Gln Thr Ala Gly Leu Ala Ser Ala Trp Trp Arg Asp Glu 280 Ile Leu Ala Asn Ser Ala Ile Ala Thr Val Tyr Thr Gln Ala Asp Asp 295

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310

<210> 6465 <211> 394

<212> PRT

<213> Enterobacter cloacae

<400> 6465

Pro Glu Asp Ile Pro Leu Lys Arg Arg Leu Phe Ile Ala Val Ser Leu Leu Ala Ser Ser Ile Ser Ser Ala Leu Ala Ala Glu Pro Leu Asp Phe Ser Pro Gln Pro Pro Ala Ile Gln Ala Gly Ser Trp Val Leu Met Asp 40 Tyr Thr Thr Gly Gln Ile Leu Thr Ala Gly Asn Glu His Gln Gln Arg Asn Pro Ala Ser Leu Thr Lys Leu Met Thr Gly Tyr Val Val Asp Arg 75 Ala Ile Asp Ser His Arg Ile Ser Pro Asp Asp Ile Val Thr Val Gly 90 8.5 Arg Asp Ala Trp Ala Lys Gly Asn Ser Val Phe Asp Gly Ser Ser Leu 100 105 Met Phe Leu Lys Glu Gly Asp Arg Val Ser Val Arg Asp Leu Ser Arg 120 125 Gly Leu Ile Val Asp Ser Gly Asn Asp Ala Cys Val Ala Leu Ala Asp 135 140 His Val Ala Gly Gly Gln Pro Gln Phe Val Arg Met Met Asn Asp Tyr 150 155 Val Glu Lys Leu Asn Leu Arg Asp Thr His Phe Glu Thr Val His Gly 165 170 Leu Asp Ala Pro Gly Gln His Ser Ser Ala Tyr Asp Leu Ala Val Leu 180 185 Ser Arg Ala Ile Ile His Gly Glu Pro Glu Phe Tyr His Met Tyr Ser 200 Glu Lys Ser Leu Thr Trp Asn Gly Ile Thr Gln Gln Asn Arg Asn Gly 215 220 Leu Leu Trp Asp Lys Thr Met Asn Val Asp Gly Leu Lys Thr Gly His 230 235 Thr Ser Gly Ala Gly Phe Asn Leu Ile Ala Ser Ala Val Asp Gly Gln 245 250 Arg Arg Leu Ile Ala Val Wat Gly Ala Asp Thr Pro Lys Gly Arg 265 Glu Asp Gln Ala Arg Lys Leu Leu His Trp Gly Gln Gln Asn Phe Asp 280 Thr Val Gln Ile Leu His Asn Gly Lys Lys Val Gly Thr Glu Arg Ile 295 300 Trp Tyr Gly Asp Lys Glu Gln Ile Ala Leu Gly Thr Asp Gln Asp Phe 310 315 Trp Leu Ala Leu Pro Lys Ser Glu Val Pro Asn Ile Lys Ala Lys Tyr 330 325 Val Met Asp Lys Glu Leu Glu Ala Pro Ile Ala Ala His Gln Arg 340 345 Val Gly Glu Ile Gln Leu Tyr Asp Arg Asp Lys Val Val Ala His Trp 360 365 Pro Leu Val Thr Leu Glu Ser Val Glu Lys Gly Gly Leu Phe Ser Arg 375 380 Leu Gly Asp Tyr Leu His His Lys Leu 390

<210> 6466 <211> 457

<212> PRT <213> Enterobacter cloacae

<400> 6466 Arg Arg Ile Thr Met Ser His Asn Ala Thr Pro Asn Thr Ser Arg Val Glu Leu Arg Lys Thr Leu Thr Leu Ile Pro Val Val Met Met Gly Leu 20 25 Ala Tyr Met Gln Pro Met Thr Leu Phe Asp Thr Phe Gly Ile Val Ser 40 Gly Leu Thr Asp Gly His Val Pro Thr Ala Tyr Gly Phe Ala Leu Ile 55 Ala Ile Leu Phe Thr Ala Leu Ser Tyr Gly Lys Leu Val Arg Arg Tyr 75 70 Pro Ser Ala Gly Ser Ala Tyr Thr Tyr Ala Gln Lys Ser Ile Ser Pro 85 90 Thr Val Gly Phe Met Val Gly Trp Ser Ser Leu Leu Asp Tyr Leu Phe 100 105 Ala Pro Met Ile Asn Ile Leu Leu Ala Lys Ile Tyr Phe Glu Ala Leu 120 Val Pro Ser Ile Pro Ser Trp Met Phe Val Val Ala Leu Val Ala Phe 135 Met Thr Ala Phe Asn Leu Arg Ser Ile Lys Ser Val Ala Asn Phe Asn 150 Ser Val Ile Val Val Leu Gln Val Val Leu Ile Ala Val Ile Leu Gly 170 Met Val Ile Tyr Gly Val Phe His Gly Glu Gly Ala Gly Thr Leu Ala 180 185 Ser Ser Lys Pro Phe Trp Ser Gly Asp Ala His Val Ile Pro Met Ile 195 200 Thr Gly Ala Thr Ile Leu Cys Phe Ser Phe Thr Gly Phe Asp Gly Ile 215 220 Ser Asn Leu Ser Glu Glu Thr Lys Asp Ala Glu Arg Val Ile Pro Arg 230 235 Ala Ile Phe Leu Thr Ala Leu Ile Gly Gly Leu Ile Phe Ile Phe Ser 245 250 Thr Tyr Phe Leu Gln Leu Tyr Phe Pro Asp Ile Ser Arg Phe Lys Asp 265 Pro Asp Ala Ser Gln Pro Glu Ile Met Leu Tyr Val Ala Gly Lys Ala 280 Phe Gln Val Gly Ala Leu Ile Phe Ser Thr Ile Thr Val Leu Ala Ser 295 300 Gly Met Ala Ala His Ala Gly Val Ala Arg Leu Met Tyr Val Met Gly 315 310 Arg Asp Gly Val Phe Pro Lys Ser Phe Phe Gly Tyr Val His Pro Thr 330 325 Trp Arg Thr Pro Ala Met Asn Ile Ile Leu Val Gly Ala Ile Ala Leu 345 Leu Ala Ile Asn Phe Asp Leu Val Met Ala Thr Ala Leu Ile Asn Phe 360 Gly Ala Leu Val Ala Phe Thr Phe Val Asn Leu Ser Val Ile Ser Gln Phe Trp Ile Arg Glu Lys Arg Asn Lys Thr Leu Lys Asp His Phe Gln 390 395 Tyr Leu Phe Leu Pro Met Cys Gly Ala Met Thr Val Gly Ala Leu Trp 405 410 Val Asn Leu Glu Glu Ser Ser Met Val Leu Gly Leu Ile Trp Ala Gly 425 Ile Gly Leu Val Tyr Leu Ala Cys Val Thr Lys Ser Phe Arg Asn Pro Val Pro Gln Tyr Glu Asp Val Ala

<210> 6467

<211> 175 <212> PRT

<213> Enterobacter cloacae

<400> 6467

Ser Arg Phe Cys Phe Thr Val Tyr Ile Tyr Thr Val Ile Asn Gly Gly

455

Ser Met Asp Tyr Ser Ile Arg Gln Gln Lys Arg Thr Ile Ala Gly 20 25

Phe His Leu Val Gly Pro Trp Glu Lys Thr Val Lys Gln Gly Phe Glu

Gln Leu Val Met Trp Val Asp Gly Arg His Ile Gln Pro Gln Glu Trp 55

Val Ala Val Tyr Tyr Asp Asn Pro Asp Asp Val Pro Ala Glu Lys Leu

Arg Cys Val Thr Ala Val Thr Val Val Asp Val Phe Thr Ile Pro Glu 90

Asn Ser Glu Gly Val Met Met Thr Glu Ile Ala Ala Gly Glu Tyr Ala 100 105

Ile Ala Ala Arg Val Glu Asn His Asp Phe Ala Thr Pro Trp Tyr 120

Gln Phe Phe Asn Ser Leu Leu Glu Asp Ser Lys Phe Gln Ile Ala Ala 135

Lys Pro Cys Phe Glu Arg Tyr Leu Asn Asp Gly Asn Ala Asp Gly Tyr 150 155

Trp Asp Ile Glu Met Phe Val Pro Val Glu His Lys Val Gly 165 170

<210> 6468

<211> 65

<212> PRT

<213> Enterobacter cloacae

<400> 6468

Ser Lys Asn His Leu Met Met Lys Leu Asn Ser Gly Met Ser Cys Asp

Phe Cys Gln Ser Ser Leu Leu Glu Asn Pro Val Lys Val Ser Arg Lys

Asn Arg Ile Ala Ala Thr Met Ser Thr Pro Arg Asn Ala Pro Lys Gln 40

Met Pro Ser Thr Leu Ser Val Pro Asp Arg Pro Val Phe Ser Thr Ser

65

<210> 6469

<211> 273

<212> PRT

<213> Enterobacter cloacae

<400> 6469

Ala Lys Arg Phe Ala Trp Arg Ala Glu Ala Asn Leu Arg Pro Glu Arg

Cys Gly Asp Glu Leu Gln Arg Gln Leu Ile Glu Ile Ile Pro Ser Pro

Trp Pro Ser Pro Gln Arg Gly Glu Gly Ser Val Tyr Ser Leu Ser Leu

Glu Gly Glu Gly Arg Gly Glu Gly Glu Ala Asp Val His Arg Asn Val

55 60 Asn Gly Ala Val Ala Leu Ser Ile Phe Ser Ala Pro Phe Leu Phe Thr 70 75 Arg Gly Lys Glu Ile Pro Thr Gln Thr Phe Ser Phe Ser Val Arg Ile 85 90 Arg Pro Glu Leu Asp Asp Arg Ala Phe Asn Arg Gly Thr His Met Val 105 Trp Ile Asp Tyr Ala Ile Ile Ala Val Ile Gly Phe Ser Cys Leu Val 120 Ser Leu Ile Arg Gly Phe Val Arg Glu Ala Leu Ser Leu Val Thr Trp 135 140 Gly Cys Ala Phe Phe Val Ala Ser His Tyr Tyr Thr Tyr Leu Ser Val 150 155 Trp Phe Thr Gly Phe Glu Asp Glu Leu Val Arg Asn Gly Ile Ala Ile 170 Ala Val Leu Phe Ile Ala Thr Leu Ile Val Gly Ala Ile Val Asn Tyr 185 Val Ile Gly Gln Leu Val Glu Lys Thr Gly Leu Ser Gly Thr Asp Arg 200 205 Val Leu Gly Ile Cys Phe Gly Ala Leu Arg Gly Val Leu Ile Val Ala 215 220 Ala Ile Leu Phe Phe Leu Asp Thr Phe Thr Gly Phe Ser Lys Ser Glu 230 235 Asp Trp Gln Lys Ser Gln Leu Ile Pro Glu Phe Ser Phe Ile Ile Arg 245 250 Trp Phe Phe Asp Tyr Leu Gln Ser Ser Ser Phe Leu Pro Arg Ala 260 265

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<210> 6470
<211> 517
<212> PRT
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<213> Enterobacter cloacae

<400> 6470 Thr Leu Arg Cys Gly Leu Thr Arg Lys Arg Arg Met Cys Gly Ile Val 10 Gly Ile Ala Gly Phe Met Pro Val Asn Gln Ser Ile Tyr Asp Ala Leu 25 Thr Val Leu Gln His Arg Gly Gln Asp Ala Ala Gly Ile Ile Thr Ile Asp Ala Asn Asn Cys Phe Arg Leu Arg Lys Ala Asn Gly Leu Val Asn 55 Asp Val Phe Glu Ala Arg His Met Gln Arg Leu Gln Gly Asn Met Gly Ile Gly His Val Arg Tyr Pro Thr Ala Gly Ser Ser Ala Ser Glu 85 90 Ala Gln Pro Phe Tyr Val Asn Ser Pro Tyr Gly Ile Thr Leu Ala His 100 105 110 Asn Gly Asn Leu Thr Asn Ala His Glu Leu Arg Lys Leu Phe Glu 120 125 Glu Lys Arg Arg His Ile Asn Thr Thr Ser Asp Ser Glu Ile Leu Leu 135 140 Asn Ile Phe Ala Ser Glu Leu Asp Asn Phe Arg His Tyr Pro Leu Glu 150 155 Ala Asp Asn Ile Phe Ala Ala Val Ala Ala Thr Asn Arg Gln Ile Arg 165 170 Gly Ala Tyr Ala Cys Val Ala Met Ile Ile Gly His Gly Met Val Ala 185 Phe Arg Asp Pro Asn Gly Ile Arg Pro Leu Val Leu Gly Lys Arg Asp

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200
                                                 205
Leu Gly Asp Gly Arg Ser Glu Tyr Met Val Ala Ser Glu Ser Val Ala
                        215
                                            220
Leu Asp Thr Leu Gly Phe Glu Phe Leu Arg Asp Val Ala Pro Gly Glu
                                       235
                   230
Ala Val Tyr Ile Thr Glu Lys Gly Gln Leu Phe Thr Arg Gln Cys Ala
                245
                                    250
Asp Asn Pro Val Ser Asn Pro Cys Leu Phe Glu Tyr Val Tyr Phe Ala
            260
                                265
                                                     270
Arg Pro Asp Ser Phe Ile Asp Lys Ile Ser Val Tyr Ser Ala Arg Val
                            280
Asn Met Gly Thr Lys Leu Gly Glu Lys Ile Ala Arg Glu Trp Asp Asp
                        295
Leu Asp Ile Asp Val Val Ile Pro Ile Pro Glu Thr Ser Cys Asp Ile
                    310
                                        315
Ala Leu Glu Ile Ala Arg Ile Leu Asp Lys Pro Tyr Arg Gln Gly Phe
                325
                                    330
Val Lys Asn Arg Tyr Val Gly Arg Thr Phe Ile Met Pro Gly Gln Gln
            340
                                345
                                                     350
Leu Arg Arg Lys Ser Val Arg Arg Lys Leu Asn Ala Asn Arg Ala Glu
                            360
        355
                                                 365
Phe Arg Asp Lys Asn Val Leu Leu Val Asp Asp Ser Ile Val Arg Gly
                                            380
                        375
Thr Thr Ser Glu Gln Ile Ile Glu Met Ala Arg Glu Ala Gly Ala Lys
                    390
                                        395
Lys Val Tyr Leu Ala Ser Ala Ala Pro Glu Ile Arg Phe Pro Asn Val
                405
                                    410
Tyr Gly Ile Asp Met Pro Thr Ala Asn Glu Leu Ile Ala His Gly Arg
                                425
            420
Glu Val Asp Glu Ile Arg Gln Ile Ile Gly Ala Asp Gly Leu Ile Phe
                            440
        435
                                                 445
Gln Asp Leu Asn Asp Leu Ile Asp Ala Val Arg Ala Glu Asn Pro Asp
                        455
                                             460
Ile Gln Gln Phe Glu Cys Ser Val Phe Asn Gly Ile Tyr Val Thr Lys
                    470
                                        475
Asp Val Asp Gln Gln Tyr Leu Asp Tyr Leu Asp Ser Leu Arg Asn Asp
                485
                                    490
Asp Ala Lys Ala Val Gln Leu Gln Asn Asp Leu Glu Ser Leu Glu Met
            500
                                505
His Asn Glu Gly
        515
<210> 6471
<211> 253
<212> PRT
<213> Enterobacter cloacae
<400> 6471
Arg Ala Ala Pro Pro Val Pro Gly Gly Glu Lys Thr Arg Phe His His
                                    10
Ser Arg Asp Asp Arg Ala Arg Gly Met Leu Tyr Gly Phe Ser Gly Val
                                2.5
Ile Leu Gln Gly Ala Leu Val Thr Leu Glu Leu Ala Ile Ser Ser Val
                            40
Val Leu Ala Val Leu Ile Gly Leu Ala Gly Ala Gly Ala Lys Leu Ser
                        55
Ala Asn Arg Pro Leu Ala Leu Ile Phe Glu Gly Tyr Thr Thr Leu Ile
                    70
                                        75
Arg Gly Val Pro Asp Leu Val Leu Met Leu Ile Phe Tyr Gly Leu
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90

Gln Ile Ala Leu Asn Gly Val Thr Asp Ala Ile Gly Met Glu Gln Ile

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100
                               105
                                                    110
Asp Ile Asp Pro Met Val Ala Gly Ile Ile Thr Leu Gly Phe Ile Tyr
                           120
                                               125
       115
Gly Ala Tyr Phe Thr Glu Thr Phe Arg Gly Ala Tyr Met Ala Val Pro
                       135
                                           140
Lys Gly His Ile Glu Ala Ala Thr Ala Tyr Gly Phe Thr Ser Ser Gln
                   150
                                       155
Thr Phe Arg Arg Ile Met Phe Pro Ala Met Met Arg Tyr Ala Leu Pro
                                   170
               165
Gly Ile Gly Asn Asn Trp Gln Val Ile Leu Lys Ala Thr Ala Leu Val
           180
                               185
                                                   190
Ser Leu Leu Gly Leu Glu Asp Val Lys Ala Thr Gln Leu Ala Gly
                           200
                                                205
Lys Ser Thr Trp Glu Pro Phe Tyr Phe Ala Val Val Cys Gly Leu Ile
                       215
                                           220
Tyr Leu Val Phe Thr Thr Val Ser Asn Gly Val Leu Leu Leu Glu
                                       235
                    230
Arg Arg Tyr Ser Val Gly Val Lys Arg Ala Asp Leu
<210> 6472
<211> 154
<212> PRT
<213> Enterobacter cloacae
<400> 6472
Ser Arg Pro Gly Lys Thr Ala Ala Arg Ser Leu Asp Pro Ser Gly Leu
                                    10
Gly Thr Asn Asn Asn Ile Glu Ile Asp Pro Val Pro Glu Glu Gln His
                                25
Lys Pro Val Glu Lys Pro Lys Pro Val Glu Lys Pro Gln Pro Lys Pro
                                                45
Gln Arg Asp Lys Ala Ala Glu Gln Leu Ala Ala Ala Ser Glu Thr Pro
                        55
Pro Gln Ala Lys Gln Asp Ala Ala Pro Thr Gly Lys Ala Tyr Val Val
                   70
                                        7.5
Gln Leu Gly Ala Leu Lys Asn Ala Asp Lys Val Asn Glu Ile Val Ser
                                    90
                85
Lys Leu Arg Gly Ala Gly Tyr Arg Val Tyr Thr Ser Pro Thr Thr Pro
            100
                                105
                                                    110
Val Gln Gly Lys Ile Thr Arg Ile Leu Val Gly Pro Asp Ala Ser Lys
                            120
                                                125
Asp Lys Leu Lys Gly Ser Leu Gly Glu Leu Lys Gln Ile Ser Gly Leu
                        135
Ser Gly Val Val Met Asn Tyr Ser Ala Asn
                    150
<210> 6473
<211> 329
<212> PRT
<213> Enterobacter cloacae
<400> 6473
Phe Ala Phe Ser Phe Phe Leu Phe Pro Val Arg Ser Ala Asp Leu Leu
                                    10
Ser Phe Thr Ile Lys Ala Val Ser Gln Arg Phe Ile Asn Ile Phe Asn
                                25
Val Val Leu Ser Arg Arg Gln Cys Gly Ile Arg Pro Ala Arg Ala
                           40
                                                45
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Ala Cys Asn Thr Thr His Asn Ile Asn His Asn Lys Ile Thr Val Leu

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Glu Gly Lys Cys Met Lys Lys Thr Val Leu Ala Leu Ser Leu Leu Val
                    70
                                        75
Gly Leu Ser Ala Ala Ala Ser Ser Tyr Ala Ala Leu Pro Gln Thr Val
                85
                                    90
Arg Ile Gly Thr Asp Ala Thr Tyr Ala Pro Phe Ser Ser Lys Asp Ala
                                105
Lys Gly Asp Phe Val Gly Phe Asp Ile Asp Leu Gly Asn Glu Met Cys
                            120
Lys Arg Leu Glu Val Lys Cys Thr Trp Val Gly Ser Asp Phe Asp Ala
                        135
                                            140
Leu Ile Pro Ser Leu Lys Ala Lys Lys Ile Asp Ala Ile Ile Ser Ser
                    150
                                        155
Leu Ser Ile Thr Glu Lys Arg Gln Gln Glu Ile Ala Phe Ser Glu Lys
                                    170
                165
Leu Tyr Ala Ala Asp Ser Arg Leu Ile Ala Ala Lys Gly Ser Pro Ile
            180
                                185
                                                     190
Gln Pro Thr Ile Asp Ser Leu Lys Gly Lys His Val Gly Val Leu Gln
                            200
                                                 205
Gly Ser Thr Gln Glu Gly Phe Ala Asn Ala Asn Trp Arg Glu Lys Gly
                        215
                                             220
Val Asp Val Val Ala Tyr Gln Asn Gln Asp Leu Ile Tyr Ser Asp Leu
                    230
                                         235
Ala Ala Gly Arg Leu Asp Ala Ala Phe Gln Asp Glu Val Ala Ala Ser
                245
                                    250
Glu Gly Phe Leu Lys Gln Pro Ala Gly Lys Glu Tyr Ala Phe Ala Gly
                                265
Pro Ser Val Lys Asp Lys Lys Tyr Phe Gly Asp Gly Thr Gly Ile Gly
                            280
Leu Arg Lys Asp Asp Thr Glu Leu Lys Ala Ala Phe Asp Lys Ala Phe
                        295
Asn Glu Leu Arg Lys Asp Gly Thr Tyr Asp Lys Leu Ala Lys Lys Tyr
                    310
                                         315
Phe Asn Phe Asn Val Tyr Gly Asp
<210> 6474
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 6474
Thr Gly Pro Lys Arg Asn Arg His Arg Gly Ala Val Tyr Arg Asp Val
                                    10
Asp Cys Arg Arg Tyr Arg Gln Leu Arg Asp Arg Ser Ala Gly Arg Glu
                                25
Asn Arg Ser Val Arg Asn Gly Gln Gly Ala Arg His Leu Phe Arg Arg
                            40
Val Ala Arg Arg Ala His Cys Gly Arg Asp Pro Val Leu Pro Gly Tyr
                        55
Leu Tyr Arg Val Leu Gln Lys
<210> 6475
<211> 204
<212> PRT
<213> Enterobacter cloacae
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<400> 6475

Asn Pro Ala Gln Ser Ala Leu Lys Ser Ala Arg Ala Lys Ile Met Lys
1 5 10 15
Arg Leu Ile Val Gly Ile Ser Gly Ala Ser Gly Ala Ile Tyr Gly Val

20 25 Arg Leu Leu Gln Val Leu Arg Asp Val Ala Gly Val Glu Thr His Leu 40 45 Val Met Ser Gln Ala Ala Arg Gln Thr Leu Ser Leu Glu Thr Asp Leu 55 Ser Leu Arg Asp Val Gln Ala Leu Ser Asp Val Val His Asp Ala Arg 70 75 Asp Ile Ala Ala Ser Ile Ser Ser Gly Ser Phe Lys Thr Ala Gly Met 90 Val Ile Leu Pro Cys Ser Ile Lys Thr Leu Ser Gly Ile Val Asn Ser 105 Tyr Thr Asp Thr Leu Val Thr Arg Ala Ala Asp Val Val Leu Lys Glu 120 125 Arg Arg Pro Leu Val Leu Cys Val Arg Glu Thr Pro Leu His Leu Gly 135 His Leu Arg Leu Met Thr Gln Ala Ala Glu Leu Gly Ala Val Ile Met 150 155 Pro Pro Val Pro Ala Phe Tyr His Arg Pro Gln Thr Leu Asp Asp Val 165 170 Ile Asn Gln Thr Val Asn Arg Val Leu Asp Gln Phe Asp Ile Asp Leu 180 185 Pro Glu Asp Leu Phe Thr Arg Trp Gln Gly Ala 195 200 <210> 6476 <211> 268

<212> PRT

<213> Enterobacter cloacae

<400> 6476 Asp Ser Leu Leu Arg Thr Asp Met Lys Lys Leu Val Leu Ser Leu Ser Leu Val Leu Ala Phe Ser Ser Ala Thr Ala Ala Phe Ala Ala Ile Pro Gln Lys Ile Arg Ile Gly Thr Asp Pro Thr Tyr Ala Pro Phe Glu Ser 40 Lys Asn Ala Lys Gly Glu Leu Val Gly Phe Asp Ile Asp Leu Ala Asn Glu Leu Cys Lys Arg Ile Lys Val Gln Cys Thr Tyr Val Glu Asn Pro 70 Leu Asp Ala Leu Ile Pro Ser Leu Lys Ala Lys Lys Ile Asp Val Ile Met Ser Ser Leu Ser Ile Thr Glu Lys Arg Gln Glu Ile Ala Phe 105 Thr Asp Lys Leu Tyr Ala Ala Asp Ser Arg Leu Val Val Ala Lys Ser 115 120 Ser Asp Ile Gln Pro Thr Leu Glu Ser Leu Lys Gly Lys Arg Val Gly 135 140 Val Leu Gln Gly Thr Thr Gln Glu Thr Tyr Gly Asn Glu His Trp Ala 150 155 Pro Lys Gly Ile Glu Ile Val Ser Tyr Gln Gly Gln Glu Asn Ile Tyr 170 165 Ala Asp Leu Thr Ala Gly Arg Ile Asp Ala Ala Phe Gln Asp Glu Val 180 185 190 Ala Ala Ser Glu Gly Phe Leu Lys Gln Pro Val Gly Lys Asp Tyr Lys 200 205 Phe Gly Gly Pro Ser Ile Lys Asp Glu Lys Leu Phe Gly Val Gly Thr 215 220 Gly Met Gly Leu Arg Lys Glu Asp Asn Glu Leu Arg Glu Ala Leu Asn 230 235 Lys Ala Phe Ala Glu Met Arg Ala Asp Gly Thr Tyr Asp Lys Leu Ala

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245
                                                         255
Lys Lys Tyr Phe Asp Phe Asn Val Tyr Gly Gly
<210> 6477
<211> 239
<212> PRT
<213> Enterobacter cloacae
<400> 6477
Pro Val Ile Glu Ile Gln Glu Tyr Trp Lys Ser Leu Leu Trp Thr
                                     10
Asp Gly Tyr Arg Phe Thr Gly Val Ala Ile Thr Leu Trp Leu Leu Ile
Ser Ser Val Val Met Gly Gly Ile Leu Ala Val Phe Leu Ala Ile Gly
                            40
Arg Val Ser Asn Asn Lys Phe Ile Gln Phe Pro Ile Trp Leu Phe Thr
                        55
Tyr Val Phe Arg Gly Thr Pro Leu Tyr Val Gln Leu Leu Val Phe Tyr
                    70
                                         75
Ser Gly Met Tyr Thr Leu Glu Ile Val Lys Gly Thr Glu Met Leu Asn
                                     90
Ala Phe Phe Arg Ser Gly Leu Asn Cys Thr Val Leu Ala Leu Thr Leu
                                 105
Asn Thr Cys Ala Tyr Thr Thr Glu Ile Phe Ala Gly Ala Ile Arg Ser
                            120
Val Pro His Gly Glu Ile Glu Ala Ala Arg Ala Tyr Gly Phe Ser Ser
                        135
                                             140
Val Lys Leu Tyr Arg Cys Ile Ile Leu Pro Ser Ala Leu Arg Ile Ala
                                         155
                    150
Leu Pro Ala Tyr Ser Asn Glu Val Ile Leu Met Leu His Ser Thr Ala
                                     170
                165
Leu Ala Phe Thr Ala Thr Val Pro Asp Leu Leu Lys Ile Ala Arg Asp
                                 185
Ile Asn Ser Ala Thr Tyr Gln Pro Phe Thr Ala Phe Gly Ile Ala Ala
                            200
                                                 205
        195
Val Leu Tyr Leu Ile Ile Ser Tyr Val Leu Ile Ser Leu Phe Arg Lys
                        215
Ala Glu Lys Arg Trp Leu Gln His Ile Lys Pro Ser Thr His
                    230
<210> 6478
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 6478
Leu Tyr Leu Ser Ala Ala Pro Ala Ser Leu Arg Gly Glu Asp Leu Gln
                                     1.0
Lys Arg Leu Arg Arg Asn Val Gly Glu Ala Ile Ala Asp Phe Asn Met
                                 25
Ile Glu Glu Gly Asp Arg Ile Met Val Cys Leu Ser Gly Gly Lys Asp
                            40
                                                 45
Ser Tyr Thr Met Leu Glu Ile Leu Arg Asn Leu Gln Gln Ser Ala Pro
                        55
                                             60
Val Asn Phe Ser Leu Val Ala Val Asn Leu Asp Gln Lys Gln Pro Gly
                    70
                                        75
Phe Pro Glu His Ile Leu Pro Glu Tyr Leu Asp Asn Leu Gly Val Glu
                                     90
Tyr Lys Ile Val Glu Glu Asn Thr Tyr Gly Ile Val Lys Glu Lys Ile
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Pro Glu Gly Lys Thr Thr Cys Ser Leu Cys Ser Arg Leu Arg Arg Gly 120 Ile Leu Tyr Arg Thr Ala Thr Glu Leu Gly Ala Thr Lys Ile Ala Leu 135 Gly His His Arg Asp Asp Ile Leu Gln Thr Leu Phe Leu Asn Met Phe 150 155 Tyr Gly Gly Lys Met Lys Gly Met Pro Pro Lys Leu Met Ser Asp Asp 170 165 Gly Lys His Ile Val Ile Arg Pro Leu Ala Tyr Cys Arg Glu Lys Asp 185 180 Ile Glu Arq Phe Ser Gln Ala Lys Ala Phe Pro Ile Ile Pro Cys Asn 200 195 205 Leu Cys Gly Ser Gln Pro Asn Leu Gln Arg Gln Val Ile Gly Asp Met 220 215 Leu Arg Asp Trp Asp Lys Arg Tyr Pro Gly Arg Ile Glu Thr Met Phe 230 235 Ser Ala Met Gln Asn Val Val Pro Ser His Leu Ala Asp Val Glu Leu 245 250 Phe Asp Phe Lys Gly Ile Asn His Gly Ser Glu Val Val Asn Gly Gly 265 Asp Leu Ala Phe Asp Arg Glu Glu Ile Pro Met Gln Pro Ala Gly Trp 280 Gln Pro Glu Glu Glu Asp Ala Gln Phe Asp Glu Leu Arg Leu Asn Val 290 295 Val Glu Val Lys <210> 6479 <211> 388 <212> PRT <213> Enterobacter cloacae <400> 6479 Cys Gln Pro Lys Tyr Asn Ala Pro Gly Lys Arg Met Leu Arg Asn Ile 10 Ser Val Arg Thr Phe Ile Val Tyr Phe Leu Leu Cys Val Phe Leu Val Ser Asp Gly Val Ile Ala Leu Phe Ser Arg Asn Ser Ser Leu Phe Ile 35 Ala Val Ile Ile Val Gln Phe Ile Ala Leu Phe Leu Leu Trp Ala Tyr 55 Met Thr Lys Tyr Leu Val Thr Pro Ile Asn Thr Val Lys Lys Ser Ile 70 75 Glu Glu Val Thr Ser Gly Lys Leu Gly Val Ser Ile Pro Glu Phe Gly 85 90 Asn Asn Cys Ala Gly Arg Leu Ile Pro Gly Ile Asn Ser Leu Ser Ser 105 100 Asn Ile Ala Thr Leu Val Arg Glu Ile Arg Ala Ser Ser Gln Thr Ala 120 125 Met Thr Leu Ser Asp Gln Leu Ser Ser Arg Ser Ala Gln Leu Ser Val 135 140 Lys Thr Glu Gln Gln Ser Ala Ser Leu Val Gln Thr Ala Ala Ser Met 150 155 Glu Glu Met Ala Ala Ser Thr Lys Asn Asn Ala Asp Asn Thr Arg Leu 170 Ala Ser Glu Gln Ala Asn Leu Ala Thr Leu Gln Ala Arg Lys Gly Gly 185 Glu Leu Met Gly Gln Val Ala Asn Asn Met Gln Ser Ile Thr Asp Cys 200 Ala Gln Gln Met Thr Glu Ile Ile Ser Leu Ile Asp Gly Ile Ala Phe 215

Gln Thr Asn Ile Leu Ala Leu Asn Ala Ala Val Glu Ala Ala Arg Ala

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230
                                        235
Gly Asp His Gly Lys Gly Phe Ser Val Val Ala Gly Glu Val Arg Ser
                245
                                    250
Leu Ala His Arg Ser Ala Glu Ala Ala Lys Asn Ile Lys Ser Leu Ile
                                265
            260
Glu Val Thr Ser His Asn Val Thr Gln Gly Val Asn Val Val Ser Glu
                            280
Ala Glu Lys Asn Met His Asp Ile Val Thr Gly Ser Gly Asn Val Ser
                        295
Arg Leu Met Asp Glu Ile Ser Ala Ser Thr Ser Glu Gln Glu Lys Gly
                                        315
                    310
Ile Ser Gln Ile Thr Gln Ala Leu Ser Glu Leu Glu Arg Val Thr Gln
                                    330
                325
Ser Asn Val Ser Met Val Glu Glu Leu Asn Gly Ser Ser Asp Val Leu
                                345
                                                    350
            340
Arg Asn Gln Val Ile Glu Leu Gln Thr Arg Thr Arg Asn Phe Arg Leu
                            360
Glu Asn Glu Leu Gln Ala Asp Asn Ala Leu Arg Ser Arg Glu Trp Ala
    370
                        375
                                            380
Val Asn Ser
385
<210> 6480
<211> 333
<212> PRT
<213> Enterobacter cloacae
<400> 6480
Asn Gly Gly Gly Ala Val Glu Ser Ile Lys Gly Ser Glu Val Asn Val
                                    10
Pro Asp Ala Val Phe Ala Trp Val Phe Asp Gly Arg Gly Gly Ala Arg
Pro Leu Glu Asp Gln Asp His Ile Asp Asn Glu His Pro Cys Trp Leu
His Leu Asn Tyr Thr His Pro Asp Ser Ala Glu Trp Leu Ala Ser Thr
Pro Leu Leu Pro Asn Asn Val Arg Asp Ala Leu Ala Gly Glu Ser Leu
Arg Pro Arg Val Ser Arg Met Gly Glu Gly Thr Leu Ile Thr Leu Arg
                                    90
Cys Ile Asn Gly Ser Thr Asp Glu Arg Pro Asp Gln Leu Val Ala Met
                                105
            100
Arg Val Tyr Met Asp Glu Arg Leu Ile Val Ser Thr Arg Gln Arg Lys
        115
                            120
                                                125
Val Leu Ala Leu Asp Asp Val Ile Asn Asp Leu Lys Glu Gly Thr Gly
                        135
                                            140
Pro Thr Asp Cys Gly Ser Trp Leu Val Asp Val Cys Asp Ala Leu Thr
                    150
                                        155
Asp His Ala Ser Glu Phe Ile Glu Glu Leu His Asp Lys Ile Ile Asp
                165
                                    170
Leu Glu Asp Asn Leu Leu Asp Gln Gln Ile Pro Pro Arg Gly Phe Leu
            180
                                185
                                                    190
Ala Leu Leu Arg Lys Gln Leu Ile Val Met Arg Arg Tyr Met Thr Pro
                            200
                                                205
Gln Arg Asp Val Tyr Ala Arg Leu Ala Ser Glu Arg Met Ser Trp Met
                                            220
                        215
Asn Asp Asp Gln Arg Arg Met Gln Asp Ile Ala Asp Arg Leu Gly
                                        235
                    230
Arg Gly Leu Asp Glu Ile Asp Ser Cys Ile Ala Arg Thr Ala Val Met
                                    250
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<210> 6481 <211> 467

<212> PRT

<213> Enterobacter cloacae

<400> 6481

Leu Gln Ser Leu Leu Arg Glu Tyr Ile Val Thr Ala Phe Ser Thr Leu 10 Asn Val Leu Pro Glu Ala Gln Leu Ala Asn Leu Asn Glu Leu Gly Tyr 25 20 Leu Thr Met Thr Pro Val Gln Ala Ala Ala Leu Pro Ala Ile Leu Glu 45 4 O Gly Arg Asp Val Arg Val Gln Ala Lys Thr Gly Ser Gly Lys Thr Ala 5.5 Ala Phe Gly Leu Gly Leu Leu Gln His Ile Asp Ala Thr Leu Phe Gln 70 75 Thr Gln Ser Leu Ile Leu Cys Pro Thr Arg Glu Leu Ala Asp Gln Val 85 90 Ala Gly Glu Leu Arg Arg Leu Ala Arg Phe Leu Pro Asn Thr Lys Ile 110 100 105 Leu Thr Leu Cys Gly Gly Gln Pro Phe Gly Ala Gln Arg Asp Ser Leu 120 125 Gln His Ala Pro His Ile Ile Val Ala Thr Pro Gly Arg Leu Leu Asp 135 140 His Leu Gln Lys Gly Thr Val Ser Leu Asp Ala Leu Gln Thr Leu Val 150 155 Met Asp Glu Ala Asp Arg Met Leu Asp Met Gly Phe Ser Asp Ala Ile 170 Asp Glu Val Ile Arg Phe Ala Pro Ala Thr Arg Gln Thr Leu Leu Phe 185 Ser Ala Thr Trp Pro Glu Ala Ile Ala Ala Ile Ser Gly Arg Val Gln 200 Lys Asn Pro Leu Thr Ile Glu Ile Asp Thr Val Asp Ala Leu Pro Ala 215 220 Ile Glu Gln Gln Phe Phe Glu Thr Ser Gln Gln Gly Lys Ile Pro Leu 230 235 Leu Gln Lys Leu Leu Ser Gln His Gln Pro Ala Ser Cys Val Val Phe 250 245 Cys Asn Thr Lys Lys Asp Cys Gln Ala Val Cys Asp Ala Leu Asn Asp 260 265 Ala Gly Gln Ser Ala Leu Ser Leu His Gly Asp Leu Glu Gln Arg Asp 280 285 Arg Asp Gln Thr Leu Val Arg Phe Ala Asn Gly Ser Ala Arg Val Leu 295 300 Val Ala Thr Asp Val Ala Ala Arg Gly Leu Asp Ile Lys Ser Leu Glu 315 310 Leu Val Val Asn Phe Glu Leu Ala Trp Asp Pro Glu Val His Val His 325 330 Arg Ile Gly Arg Thr Ala Arg Ala Gly Asn Ser Gly Leu Ala Ile Ser 345

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Phe Cys Ala Pro Glu Glu Ala Gln Arg Ala Asn Ile Leu Ser Glu Met
       355
                            360
Leu Gln Leu Lys Leu Asn Trp Val Asn Thr Pro Asp Asn Ile Ser Ile
                        375
                                            380
Ala Pro Leu Ala Ala Glu Met Ala Thr Leu Cys Ile Asp Gly Gly Lys
                    390
                                         395
Lys Ala Lys Met Arg Pro Gly Asp Val Leu Gly Ala Leu Thr Gly Asp
                                    410
Met Gly Leu Asp Gly Ala Asp Ile Gly Lys Ile Thr Val His Pro Ala
            420
                                425
His Val Tyr Val Ala Val Arg Gln Ser Val Ala His Lys Ala Trp Lys
        435
                            440
                                                 445
Gln Leu Gln Gly Gly Lys Ile Lys Gly Lys Thr Cys Arg Val Arg Leu
                        455
                                             460
    450
Leu Lys
465
<210> 6482
<211> 174
<212> PRT
<213> Enterobacter cloacae
<400> 6482
His Leu Phe Leu Leu Lys Lys Gly Ile Ala Met Ala Asp Ser Phe Gln
                                    10
Asn Glu Val Pro Lys Ala Arg Ile Asn Leu Lys Leu Ala Leu His Thr
Gly Gly Ala Gln Lys Lys Ile Glu Leu Pro Leu Lys Leu Leu Thr Val
                            40
Gly Asp Phe Ser Asn Gly Lys Glu Asn Arg Pro Leu Ser Glu Arg Glu
                        55
Lys Ile Asn Val Asn Lys Asn Asn Phe Asn Ser Val Leu Ser Glu Phe
                    70
                                         75
Asn Pro Glu Val Asn Leu Thr Val Pro Asn Thr Met Ala Gly Asp Gly
                                    90
Ser Glu Glu Ser Ile Lys Leu Asn Phe Ser Asp Ile Lys Asp Phe Glu
                                105
Pro Glu Gln Val Ala Arg Gln Ile Pro Gln Leu Arg Ala Met Leu Ala
                            120
Met Arg Asn Leu Leu Arg Asp Leu Lys Ser Asn Leu Leu Asp Asn Ala
                        135
Thr Phe Arg Lys Glu Leu Glu Lys Ile Leu Lys Asp Pro Ala Leu Ser
                    150
                                         155
Gln Glu Leu Arg Asp Glu Met Ser Ala Leu Ala Pro Lys
                165
<210> 6483
<211> 219
<212> PRT
<213> Enterobacter cloacae
<400> 6483
Thr Gly Ala Val Ser Met Phe Thr Gly Ile Val Gln Gly Thr Ala Lys
                                    10
Val Val Ser Ile Asp Glu Lys Pro Asn Phe Arg Thr His Val Val Glu
                                25
Leu Pro Glu Tyr Met Leu Asp Gly Ile Glu Thr Gly Ala Ser Ile Ala
                            40
His Asn Gly Cys Cys Leu Thr Val Thr Glu Ile Asn Gly Asn Gln Ile
```

55

Ser Phe Asp Leu Met Lys Glu Thr Leu Arg Ile Thr Asn Leu Gly Glu

70 75 Leu Val Val Gly Asp Ile Ile Asn Val Glu Arg Ala Ala Lys Phe Ser 8.5 90 Asp Glu Ile Gly Gly His Leu Met Ser Gly His Ile Met Thr Thr Ala 100 105 Glu Val Ala Lys Ile Val Thr Ser Glu Asn Asn Arg Gln Ile Trp Phe 120 Lys Val Gln Asp Pro Ser Leu Met Lys Tyr Ile Leu Tyr Lys Gly Phe 135 140 Ile Gly Ile Asp Gly Ile Ser Leu Thr Val Gly Glu Val Thr Pro Thr 150 155 Arg Phe Cys Val His Leu Ile Pro Glu Thr Leu Gln Arg Thr Thr Leu 170 165 Gly Ala Lys Lys Leu Gly Gln Arg Val Asn Ile Glu Ile Asp Pro Gln 180 185 190 Thr Gln Ala Val Val Asp Thr Val Glu Arg Val Leu Ala Ala Lys Glu 200 Ala Ala Ile Ile Lys Thr Val Glu Glu Glu 210 215

<210> 6484 <211> 444

<212> PRT

<213> Enterobacter cloacae

<400> 6484 Ile Lys Arg Ser Ala Ser Ser Gln Ala Ala Ser Arg Thr His Ser Met 10 Pro Arg Gln Pro Ala Ala Lys Ile Ala Ser Pro Asn Asn Arg Thr Gly 25 Leu Arg Pro Lys Arg Ser Glu Ser Gly Pro His Ser Asn Cys Ala Lys Ala Lys Pro Ala Arg Asn Lys Leu Lys Leu Ala Leu Met Ala Ala Ala 55 Gly Val Cys Lys Ser Ser Cys Ile Ala Ala Asn Ala Gly Arg Tyr Ile 70 75 Ser Val Ala Lys Lys Pro Ser Thr Leu Lys Pro Pro Ser Gln Thr Lys 85 90 Asn Pro Phe Leu Gly Cys Thr Phe Phe Leu Leu Arg Arg Gln Val Tyr 100 105 Val Gly Ala Glu Cys Arg Glu Cys Lys Ala Ala Cys Glu Thr Leu Ile 120 Phe Gly Gly Cys Ile Gln Lys Ile Cys Arg Leu Lys Met Trp Ser Asp 135 140 Tyr Ser Leu Glu Val Val Asp Ala Val Ala Arg Asn Gly Ser Phe Thr 150 155 Gly Ala Ala Gln Glu Leu His Arg Val Pro Ser Ala Ile Ser Tyr Thr 165 170 Val Arg Gln Leu Glu Ala Trp Leu Ala Val Pro Leu Phe Glu Arg Arg 180 . 185 190 His Arg Asp Val Glu Leu Thr Pro Ala Gly Ala Trp Phe Leu Lys Glu 200 205 Gly Arg Ser Val Ile Lys Lys Met Gln Ile Thr Arg Glu Gln Cys Gln 215 220 Gln Ile Ala Asn Gly Trp Arg Gly His Leu Ala Ile Ala Val Asp Asn 230 235 Ile Val Lys Pro Glu Arg Thr Arg Gln Met Ile Val Asp Phe Tyr Arg 245 250 His Phe Ser Asp Val Glu Leu Arg Val Ser Gln Glu Val Phe Asn Gly 265 Val Trp Asp Ala Leu Ala Asp Gly Arg Ala Glu Met Ala Ile Gly Ala

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280
                                                285
Thr Gln Ala Ile Pro Val Gly Gly Arg Tyr Ala Phe Arg Asp Met Gly
                       295
                                           300
Met Leu Ser Trp Thr Cys Val Val Ala Arg Asp His Pro Leu Ala Ala
                    310
                                        315
Leu Glu Gly Pro Leu Ser Asp Asp Thr Leu Arg Asn Trp Pro Ser Leu
                                    330
Val Leu Glu Asp Thr Ser Arg Ser Leu Pro Lys Arg Ile Thr Trp Leu
                                345
Leu Asp Asn Gln Arg Arg Val Val Ala Pro Asp Trp Glu Ser Ser Ala
                            360
Thr Cys Leu Ser Ala Gly Leu Cys Val Gly Met Val Pro Val His Phe
                        375
                                            380
Ala Arg Pro Arg Ile Asp Ala Gly Glu Trp Val Ala Leu Thr Leu Glu
                    390
                                        395
Asn Pro Phe Pro Asp Ala Ala Cys Cys Leu Thr Trp Gln Gln Asn Asp
                405
                                    410
Val Ser Pro Ala Met Ala Trp Leu Leu Asp Tyr Leu Gly Asp Ser Glu
                                425
                                                     430
            420
Thr Leu Asn Arg Glu Trp Leu Arg Glu Pro Ala
       4.35
                            440
<210> 6485
<211> 279
<212> PRT
<213> Enterobacter cloacae
<400> 6485
Phe Cys Ala Gly Leu Trp His Gly Ile Arg Ser Leu Phe Met Lys Ile
                                    10
Asn Phe Pro Leu Ala Leu Ala Ile Gly Ala Phe Gly Ile Gly Thr
                                25
Thr Glu Phe Ser Pro Met Gly Leu Leu Pro Val Ile Ala Arg Gly Val
                            40
Asp Val Ser Ile Pro Ala Ala Gly Met Leu Ile Ser Ala Tyr Ala Ile
Gly Val Met Val Gly Ala Pro Leu Met Thr Leu Leu Ser His Arg
                    70
                                        75
Ala Arg Arg Asn Ala Leu Ile Phe Leu Met Ala Ile Phe Thr Leu Gly
                                    90
Asn Val Phe Ser Ala Ile Ser Pro Asp Tyr Thr Thr Leu Met Leu Ser
                                105
Arg Ile Leu Thr Ser Leu Asn His Gly Ala Phe Phe Gly Leu Gly Ser
                            120
                                                125
Val Val Ala Ala Ser Val Val Pro Lys His Lys Gln Ala Ser Ala Val
                        135
                                            140
Ala Thr Met Phe Met Gly Leu Thr Ile Ala Asn Ile Gly Gly Val Pro
                    150
                                        155
Ala Ala Thr Trp Leu Gly Glu Ala Ile Gly Trp Arg Met Ser Phe Leu
               165
                                    170
                                                        175
Ala Thr Ala Gly Leu Gly Val Val Ala Met Val Ala Leu Phe Phe Ser
           180
                                185
Leu Pro Lys Gly Ser Ala Gly Glu Arg Pro Glu Val Arg Lys Glu Leu
                            200
                                                205
Ala Val Leu Met Arg Pro Gln Val Leu Ser Ala Leu Leu Thr Thr Val
                        215
                                            220
Leu Gly Ala Gly Ala Met Phe Thr Leu Tyr Thr Tyr Ile Ser Pro Val
                   230
                                        235
Leu His Asp Ile Thr His Ala Thr Pro Leu Phe Val Thr Ala Met Leu
                                    250
```

Val Leu Ile Gly Val Gly Phe Ser Thr Gly Pro Ile Ser Val Phe Thr

270

265

```
Thr Arg Thr Gly Pro Arg Thr
        275
<210> 6486
<211> 109
<212> PRT
<213> Enterobacter cloacae
<400> 6486
Gly Arg Ile Ser Thr Ala Ser Ser Leu Arg Thr Ser Gly Arg Ser Pro
Ala Leu Pro Phe Gly Ser Glu Lys Asn Ser Ala Thr Ile Ala Thr Thr
                                25
Pro Ser Pro Ala Val Ala Arg Lys Asp Ile Arg Gln Pro Met Ala Ser
                            40
Pro Ser Gln Val Ala Ala Gly Thr Pro Pro Ile Leu Ala Met Val Arg
                        55
Pro Ile Asn Ile Val Ala Thr Ala Leu Ala Cys Leu Cys Phe Gly Thr
                                        7.5
                    70
Thr Leu Ala Ala Thr Thr Glu Pro Ser Pro Lys Lys Ala Pro Trp Leu
                                    90
                85
Arg Leu Val Arg Met Arg Glu Ser Ile Arg Val Val
            100
                                105
<210> 6487
<211> 465
<212> PRT
<213> Enterobacter cloacae
<400> 6487
Leu Gln Tyr Lys Gly Val His Val Gln Lys Tyr Met Ile Glu Ala Arg
                                    10
Gln Leu Leu Ala Leu Ala Ile Pro Val Ile Val Ala Gln Val Ala Gln
                                25
Thr Ala Met Gly Phe Val Asp Thr Val Met Ala Gly Gly Tyr Ser Ala
                            40
Thr Asp Met Ala Ala Val Ala Ile Gly Thr Ser Ile Trp Leu Pro Ala
Ile Leu Phe Gly His Gly Leu Leu Ala Leu Thr Pro Val Ile Ala
                    70
Gln Leu Asn Gly Ser Gly Arg Arg Asp Arg Val Ala His Gln Val Arg
                                    90
Gln Gly Phe Trp Leu Ala Gly Phe Val Ser Val Leu Ile Met Ile Val
                                105
Leu Trp Asn Ala Gly Tyr Ile Ile Arg Ala Met His Asn Ile Asp Pro
                            120
        115
                                                125
Ala Leu Ala Asp Lys Ala Val Gly Tyr Leu Arg Ala Leu Leu Trp Gly
                        135
                                            140
Ala Pro Gly Tyr Leu Phe Phe Gln Val Ala Arg Asn Gln Cys Glu Gly
                    150
                                        155
Leu Ala Lys Thr Lys Pro Gly Met Val Met Gly Phe Ile Gly Leu Leu
                                    170
                165
Val Asn Ile Pro Val Asn Tyr Ile Phe Ile Tyr Gly His Phe Gly Met
                                185
Pro Glu Leu Gly Gly Val Gly Cys Gly Val Ala Thr Ala Ala Val Tyr
                            200
Trp Val Met Phe Gly Ser Met Leu Thr Tyr Ile Lys His Ala Arg Ser
                       215
                                           220
Met Arg Asp Ile Arg Asn Asp Thr Thr Phe Ser Thr Pro Asp Trp Ser
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Met Leu Thr Arg Leu Thr Gln Leu Gly Leu Pro Ile Ala Leu Ala Leu
                245
                                    250
Phe Phe Glu Val Thr Leu Phe Ala Val Val Ala Leu Leu Val Ser Pro
                                265
            260
Leu Gly Ile Ile Asp Val Ala Gly His Gln Ile Ala Leu Asn Phe Ser
                            280
                                                285
Ser Leu Met Phe Val Leu Pro Met Ser Leu Ala Ala Val Thr Ile
                        295
                                            300
Arg Val Gly Phe Arg Leu Gly Gln Gly Ser Thr Leu Asp Ala Gln Thr
                    310
                                        315
Ala Ala Arg Thr Gly Leu Gly Val Gly Val Cys Met Ala Val Cys Thr
                                    330
                325
Ala Leu Phe Thr Val Leu Leu Arg Glu Gln Ile Ala Leu Leu Tyr Asn
                                345
            340
Asp Asn Pro Glu Val Val Thr Leu Ala Ser His Leu Met Leu Leu Ala
        355
                            360
                                                365
Ala Ile Tyr Gln Ile Ser Asp Ser Ile Gln Val Ile Gly Ser Gly Val
    370
                        375
                                            380
Leu Arg Gly Tyr Lys Asp Thr Arg Ser Ile Phe Phe Ile Thr Phe Ile
                    390
                                        395
Ala Tyr Trp Val Leu Gly Leu Pro Ser Gly Tyr Ile Leu Ala Leu Thr
                405
                                    410
Asp Leu Val Val Asp Arg Met Gly Pro Ala Gly Phe Trp Met Gly Phe
            420
                                425
Ile Ile Gly Leu Thr Ser Ala Ala Ile Met Met Leu Arg Met Arg
        435
                            440
Phe Leu Gln Arg Gln Pro Ser Thr Val Ile Leu Gln Arg Ala Ala Arg
                        455
                                             460
465
<210> 6488
<211> 344
<212> PRT
<213> Enterobacter cloacae
<400> 6488
His Leu Met Ala Thr Ile Lys Asp Val Ala Lys Arq Ala Asn Val Ser
Thr Thr Thr Val Ser His Val Ile Asn Lys Thr Arg Phe Val Ala Glu
Glu Thr Arg Asn Ala Val Trp Ala Ala Ile Lys Glu Leu His Tyr Ser
Pro Ser Ala Val Ala Arg Ser Leu Lys Val Asn His Thr Lys Ser Ile
                        55
Gly Leu Leu Ala Thr Ser Ser Glu Ala Ala Tyr Phe Ala Glu Ile Ile
                    70
                                        7.5
Glu Ala Val Glu Lys Asn Cys Phe Gln Lys Gly Tyr Thr Leu Ile Leu
                85
                                    90
Gly Asn Ala Trp Asn Asn Ile Glu Lys Gln Arg Ala Tyr Leu Ser Met
            100
                                105
                                                     110
Met Ala Gln Lys Arg Val Asp Gly Leu Leu Val Met Cys Ser Glu Tyr
                            120
                                                125
Pro Glu Ser Val Leu Ser Met Leu Glu Glu Tyr Arg His Ile Pro Met
                        135
                                            140
```

Val Val Met Asp Trp Gly Glu Ala Arg Ala Asp Phe Thr Asp Ser Val

Ile Asp Asn Ala Phe Glu Gly Gly Tyr Met Ala Gly Arg Tyr Leu Val

Glu Arg Gly His Arg Glu Ile Gly Val Ile Pro Gly Pro Leu Glu Arg 180 185 190

155

170

```
Asn Thr Gly Ala Gly Arg Leu Ala Gly Phe Met Lys Ala Met Glu Glu
                            200
                                                 205
Ala Leu Ile Thr Val Pro Glu Asn Trp Ile Val Gln Gly Asp Phe Glu
                        215
                                             220
Pro Glu Ser Gly Tyr Arg Ala Met Gln Gln Ile Val Ser Gln Pro His
                    230
                                         235
Arg Pro Thr Ala Val Phe Cys Gly Gly Asp Ile Met Ala Met Gly Ala
                245
                                    250
Leu Cys Ala Ala Asp Glu Leu Gly Leu Arg Val Pro Gln Asp Ile Ser
                                265
            260
Val Ile Gly Tyr Asp Asn Val Arg Asn Ala Arg Phe Phe Thr Pro Ala
                            280
                                                 285
        275
Leu Thr Thr Ile His Gln Pro Lys Asp Ser Leu Gly Glu Thr Ala Phe
                                             300
                        295
Asn Met Leu Leu Asp Arg Ile Val Asn Lys Arg Glu Gln Ser Gln Ser
                                         315
                    310
Ile Glu Val His Pro Arg Leu Ile Glu Arg Arg Ser Val Ala Asp Gly
                325
                                     330
Pro Phe Arg Asp Tyr Arg Arg
            340
<210> 6489
<211> 430
<212> PRT
<213> Enterobacter cloacae
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<400> 6489 Met His Pro Pro Asn Ile Ser Val Ser Gln Ala Ala Leu His Ser Leu His Ser Ala Pro Thr Tyr Thr Cys Leu Leu Arg Arg Lys Lys Val Gln 25 Pro Arg Lys Gly Phe Leu Val Trp Leu Gly Gly Leu Ser Val Leu Gly 40 35 Phe Leu Ala Thr Asp Met Tyr Leu Pro Ala Phe Ala Ala Met Gln Glu 55 Asp Leu Gln Thr Pro Ala Ala Ile Ser Ala Ser Leu Ser Leu Phe 75 70 Leu Ala Gly Phe Ala Phe Ala Gln Leu Leu Trp Gly Pro Leu Ser Asp Arg Phe Gly Arg Lys Pro Val Leu Leu Gly Leu Ala Ile Phe Ala 100 105 Ala Gly Cys Leu Gly Met Leu Trp Val Arg Asp Ala Ala Trp Leu Leu 125 120 115 Ala Leu Arg Phe Ile Gln Ala Val Gly Val Cys Ala Ala Ala Val Thr 135 140 Trp Gln Ala Leu Val Thr Asp Tyr Tyr Pro Ala Ser Arg Thr Asn Arg 150 155 Ile Phe Ala Thr Ile Met Pro Leu Val Gly Leu Ser Pro Ala Leu Ala 170 Pro Leu Met Gly Ser Trp Ile Leu Ala His Phe Asp Trp Gln Ala Ile 190 185 Phe Ala Thr Leu Phe Ala Ile Thr Leu Val Leu Met Leu Pro Ala Phe 200 Gly Leu Lys Pro Ala His Lys Lys Glu Thr His Pro Asp Ala Lys Pro 220 215 Ile Thr Phe Thr Ser Leu Leu Arg Ser Lys Ala Tyr Arg Gly Asn Val 235 230 Leu Ile Tyr Ala Ala Cys Ser Ala Ser Phe Phe Ala Trp Leu Thr Gly 250 245 Ser Pro Phe Ile Leu His Asp Met Gly Tyr Ser Pro Ala Ala Ile Gly 265 260

Leu Ser Tyr Val Pro Gln Thr Ile Ala Phe Leu Val Gly Gly Tyr Gly 280 285 Cys Arg Ala Ala Leu Gln Lys Trp Glu Gly Gln Gln Met Leu Pro Trp 295 300 Leu Leu Val Leu Tyr Ala Leu Ser Val Ile Ala Thr Trp Ala Val Gly 310 Phe Ile Pro Gly Ala Gly Leu Ala Glu Ile Leu Ile Pro Phe Cys Val 325 330 Met Ala Ile Ala Asn Gly Ala Ile Tyr Pro Ile Val Val Ala Gln Ala 340 345 Leu Arg Pro Phe Pro Gln Ala Thr Gly Arg Ala Ala Leu Gln Asn 360 365 355 Thr Leu Gln Leu Gly Leu Cys Phe Leu Ala Ser Leu Val Val Ser Ala 380 375 370 Leu Ile Ala Thr Pro Leu Leu Thr Thr Thr Ser Val Met Leu Ile Thr 395 390 Val Ala Leu Ala Gly Leu Gly Tyr Arg Met Gln Ser Ser Ala Leu Arg 405 410 Glu Gln Asn Asp Asn Ala Gln Thr Glu Thr Ser His Ala 420 425

<210> 6490 <211> 391

<212> PRT

<213> Enterobacter cloacae

<400> 6490 Ser Gln Gln Gly Asp Gly Glu Ala Met Ser Ser Ser Cys Ile Glu Glu Val Ser Val Pro Asp Asp Asn Trp Ser Arg Ile Val Ser Glu Leu Leu 25 Gly Arg Ala Gly Ile Thr Ile Asn Gly Ser Ser Pro Ser Asp Pro Gln 40 -Ile Lys His Pro Asp Phe Phe Lys Arg Val Leu Gln Glu Gly Ser Leu Gly Leu Gly Glu Ser Tyr Met Asp Gly Trp Trp Glu Cys Glu Arg Leu 70 75 Asp Met Phe Phe Ser Ser Val Leu Arg Ala Gly Leu Glu Lys Gln Leu 85 90 Pro Arg His Phe Lys Asp Thr Leu Arg Ile Ala Ser Ala Arg Leu Phe 100 105 Asn Leu Gln Ser Lys Lys Arg Ala Trp Ile Val Gly Lys Glu His Tyr 120 125 Asp Leu Gly Asn Asp Leu Phe Ser Arg Met Leu Asp Pro Leu Met Gln 135 140 Tyr Ser Cys Gly Tyr Trp Lys Lys Ala Thr Thr Leu Glu Glu Ala Gln 150 155 Gln Asp Lys Leu Gln Leu Ile Cys Asp Lys Leu Gln Leu Gln Pro Gly 170 175 165 Met Arg Val Leu Asp Ile Gly Cys Gly Trp Gly Gly Leu Ala Trp Phe 180 185 190 Met Ala Lys Asn Tyr Gly Val Ser Val Val Gly Val Thr Ile Ser Ala 205 200 Glu Gln Gln Lys Met Ala Gln Glu Arg Cys Leu Gly Leu Asp Val Asp 215 220 Ile Arg Leu Gln Asp Tyr Arg Asp Leu Asn Glu Gln Phe Asp Arg Ile 230 · 235 Val Ser Val Gly Met Phe Glu His Val Gly Pro Lys Asn Tyr Lys Thr 250 Tyr Phe Glu Val Ala Asp Arg Asn Leu Lys Pro Asp Gly Ile Phe Leu 265

Leu His Thr Ile Gly Ser Lys Arg Thr Asp Asn Asn Val Asp Pro Trp 280 285 Ile Asn Lys Tyr Ile Phe Pro Asn Gly Cys Leu Pro Ser Val Arg Gln 295 300 Ile Ala Asn Ala Ser Glu Pro His Phe Ile Val Glu Asp Trp His Asn 315 310 Phe Gly Ala Asp Tyr Asp Thr Thr Leu Met Ala Trp His Glu Arg Phe 325 330 Gln Ala Ala Trp Pro Glu Ile Ala Asp Asn Tyr Ser Glu Arg Phe Lys 340 345 Arg Met Phe Ser Tyr Tyr Leu Asn Ala Cys Ala Gly Ala Phe Arg Ala 360 365 Arg Asp Ile Gln Leu Trp Gln Val Val Phe Ser Arg Gly Ile Glu His 375 380 Gly Leu Arg Val Ala Arg <210> 6491 <211> 364 <212> PRT <213> Enterobacter cloacae <400> 6491 Ala Arg Trp Ala Ala Pro Ser Ala Ala Tyr Ser Ala Trp Trp Ala Ala Ser Ser Ala Val Ser Ser Ala Pro Lys Arg Glu Ala Arg Cys Thr His 25 Gly Pro His Cys Arg Ala Ile Phe Leu Phe Gln Pro Arg Ile Ile Met Phe Ser Leu Phe Gln Tyr Lys Lys Gln Gly Lys Thr Pro Val Ile Arg 55 Gln His Glu Phe Thr Glu Cys Gly Leu Ala Cys Leu Ala Met Val Leu 75 Gly His Tyr Asp His His Val Ser Val Ser Gln Leu Arg Arg Glu Ile Ser Val Ser Ala Asp Ala Gly Thr Ser Met Ala Glu Leu Met Thr Leu 105 Ala Ser Asp Lys Asn Met Ser Gly Arg Val Leu Lys Gly Glu Ile Thr 120 125 Glu Ile Glu Thr Ser Glu Leu Pro Leu Ile Ala Phe Trp Arg Gly Asn 135 140 His Phe Val Val Ile Val Lys Ile Asp Ser Arg Ser Val Thr Val His 155 150 Asp Pro Ala Ser Gly Val Arg Arg Tyr Arg Leu Lys Glu Ala Glu Lys 165 170 Leu Phe Ser Gly Tyr Val Leu Glu Leu Lys Pro Thr Pro Cys Phe Glu 180 185 190 Lys Lys Ser Pro Asp Glu Thr Leu Thr Leu Gly Arg Leu Ala Asn Lys 205 200 Ser Pro Ser Leu Phe Gln Arg Gln Leu Leu Phe Val Leu Gys Ile 215 220 Phe Thr Leu Ile Thr Met Leu Ala Ser Pro Thr Tyr Val Gln Leu Ile 230 235 Met Asp Glu Ala Ile Ser Arg Ser Asp Ser Asp Leu Val Ile Leu Leu 250 Thr Ala Ile Phe Ala Ile Val Phe Ile Phe Glu Val Ile Gly Lys Phe 265

Leu Lys Gln Leu Leu Glu Ile Leu Met Arg Asn Ile Ala Tyr Asp Asp 280

Leu Ser Gln Ser Val Arg His Tyr Met Leu Arg Thr Gln Thr Ser Trp

295

 Phe
 Arg
 Ser
 Arg
 Pro
 Pro
 Gly
 Ile
 Val
 Leu
 Ala
 Ile
 Glu
 Lys
 Ser
 Leu
 320

 His
 Ala
 Cys
 Ala
 Glu
 Phe
 Ile
 Ser
 Asn
 Gly
 Tyr
 Val
 Gln
 Ile
 Leu
 Phe

 Ser
 Ser
 Leu
 Ile
 Ala
 Val
 Thr
 Ser
 Leu
 Leu
 Phe
 Met
 Leu
 Leu
 Tyr
 Asn

 Val
 Gln
 Ile
 Ala
 Leu
 Ala
 Asp
 Ala
 Ala
 Asp
 Gly

 Val
 Gln
 Ile
 Ala
 Ala
 Ala
 Ala
 Asp
 Gly

<210> 6492 <211> 208 <212> PRT

<213> Enterobacter cloacae

<400> 6492

Met Asn Lys Leu Asn Ala Ile Val Leu Gly Ser Leu Leu Ser Val Ser 10 Ala Leu Ser Ala Val Asn Ala Ala Glu Thr Thr Ala Ser Ala Thr Trp 25 Gln Ala Thr Ala Thr Lys Asp Ser Glu Ser Asp Leu Val Val Thr Pro Thr Arg Ala Leu Asn Phe Val Tyr Ser Ala Asn Thr Lys Ser Phe Asn 55 Thr Asp Thr Gly Leu Phe Asp Val Ala Ile Arg Gly Asp His Ser Thr 7.5 Ala Thr Ser Phe Lys Leu Glu Ala Ile Leu Asp Asp Ser Asn Asn Thr 85 Leu Phe Ser Val Gly Gly Glu Ala Thr Lys Leu Lys Val Gly Ala Arg 105 Trp Gly Gly Asn Asp Leu Gly Ser Ile Gly Gly Thr Val Gly Ala Lys 120 125 115 Ser Thr Ala Trp Thr Thr Leu Val Asp Ser Ser Ser Asn Thr Gly Val 135 Ser Ser Gly Leu Trp Asn Leu Thr Thr Ser Ala Gly Ala Ala Asp 150 155 Thr Glu Ile Thr Gly Gln Asp Lys Phe Val Phe Tyr Val Asp Ser Ala 170 165 Gln Asp Asn Ala Gly Thr Ala Lys Glu Phe Lys Asp Leu Thr Asn Ser 185 Leu Trp Glu Gly Thr Val Ser Val Ala Phe Arg Ala Thr Trp Gly

200

<210> 6493 <211> 229 <212> PRT

<213> Enterobacter cloacae

<400> 6493

105 Ile Thr Phe Thr Asp Glu Gly Val Ser Glu Glu Val Asp Ser Gly Ser 120 Pro Lys Asn Gly Thr Gly Met Thr Arg Ala Val Val Ser Thr Ile Leu 140 135 Val Val Gln Pro Arg Asp Lys Lys Ile Asp Phe Val Tyr Val Ala Gly 150 155 Lys Ile Thr Asn Lys Gly Asn Thr Ser Phe Arg Val Asn Ala Thr Gly 165 170 Thr Cys Leu Lys Pro Asn Pro Glu Ser Pro Gly Thr Pro Cys Ser Lys 185 180 Asn Phe Tyr Leu Met Pro Glu Thr Ser Arg Ala Ile Glu Asp Ile Asn 195 200 205 Val Thr Asp Asn His Phe His Leu Gly Ile Trp Asp Leu Lys Gln Phe 215 220 Ile Pro Val Lys <210> 6494 <211> 867 <212> PRT <213> Enterobacter cloacae <400> 6494 Gly Cys Met Val Lys Asn Lys Leu Val Leu Pro Val Met Met Ala Cys 10 Ala Ser Gly Thr Leu Pro Ala Leu Ala His Ala Ala Ser Ser Ser Val 2.5 Val Ile Ala Asn Tyr Arg Phe Pro Asp Ser Leu Tyr Ala Leu Leu Glu 40 Gln Gly Ile Lys Ile Pro Val Tyr Leu Val Asn Thr Arg Pro His Ser 55 Ala Gln Gln Gly Asn His Glu Gly Thr Ala Ser Glu Tyr Val Arg Ile 70 75 Gly Asp Val Thr Leu Phe Ala Lys Asp Leu Lys Leu Gly Leu Arg Asp 90 8.5 Val Gln Val Gln Glu Ser Asp Asn Gly Ile Arg Leu Ser Lys Glu Met 105 110 Arg Ala Leu Leu Gln Ser Ile Asn Asp Lys Gln Phe Asp Asp Gln Met 120 125 Arg Ile Pro Val Ser Ala Gly Ser Ala Phe Glu Leu Asp Gln Lys Lys 135 140 Met Arg Leu Leu Asn Leu Ser Gln Ser Asp Tyr Gly Val Asn Ile 150 155 Arg Leu Arg Glu Val Asp Ile Asp Ala Pro Glu Ser Asp Asp Leu Ser 170 Gly Thr Phe Ser Tyr Asn Leu Gly Ala Tyr His Thr Glu Ser Gly Tyr 185 Gly Asp Ser Trp Ser Ser Gly Tyr Leu Asn Ala Arg Asn Trp Ile Ser 195 200 Met Gly Val Asp His Val Leu Ile Asp Gly Ser Gly Tyr Val Asn Glu 215 220 Ser Ser Ser Asp Thr Gln Met Asn Ala Val Met Trp Glu Arg Asp Tyr 230 235 Gln Gly Met Arg Tyr Ala Ala Gly Met Leu Asn Gly Trp Ala Met Gln 250 245 Ser Leu Ala Ser Val Ser Gly Ile Ser Gly Gly Glu Val Tyr Gly Val 265 270 Ser Met Gly Asn Gln Ala Asn Ser Arg Lys Arg Asp Asn Thr Leu Ser 280

Leu Thr Pro Val Val Val Tyr Phe Pro Thr Ala Gly Glu Ala Arg Ile

295 300 Arg Arg Asp Gly Gln Leu Ile Gly Ile Gln Arg Phe Asp Val Gly Asn 310 315 His Glu Ile Asp Thr Ser Ser Leu Pro Tyr Gly Ile Tyr Ser Ile Glu 325 330 Val Glu Val Val Ser Gly Ser Arg Thr Val Ser Arg Asn Met Tyr Thr 345 Val Asn Lys Pro Phe Ser Ser Asn Val Ser Glu Thr Leu Arg Trp Gln 360 Met Trp Gly Gly Met Tyr Ser Arg Asp Lys Ser Val Val Asn Tyr Lys 380 375 Lys Tyr Ala Lys Arg Lys Asn Glu Gln Asp Asn Thr Tyr Asn Tyr Asp 390 395 Tyr Asp Thr Lys His Lys Asp Thr Met Ser Leu Val Gly Ala Ser Phe 405 410 Ser Lys Arg Ser Gly Met Val Asp Trp Asn Ala Ser Thr Tyr Met Met 425 420 Arg Glu His Ile Val Ser Glu Leu Trp Ala Ser Leu Asn Leu Thr Gly 440 Tyr Phe Ser Val Asn Thr Gln Thr Met Ala Ala Ser Asp Gly Thr Tyr 460 455 Arg Ala Asn Tyr Gly Ala Asn Leu Ser Leu Pro Trp Gln Ile Gly Ser 470 475 Val Trp Tyr Ser His Glu Gln Leu Ser Ser Gly Lys Phe Leu Asp Ile 485 490 Tyr Glu Ser Lys Gly Asn Thr Trp Gly Ala Ser Phe Ser Leu Pro Ser 500 505 Phe Gly Leu Pro Ser Ala Gly Asn Leu Ser Leu Met Arg Gln Glu Asp 520 525 Asp Leu Tyr Arg Tyr Lys Arg Tyr Gln Leu Asp Tyr Ser Gln Gly Leu 535 540 Tyr Ala Gly Arg Tyr Gly Thr Ala Arg Leu Arg Val Gly Met Ser Arg 550 555 Asn Lys Tyr Asp Gly Tyr Tyr Glu Glu Lys Asp Arg Tyr Val Met Leu 570 Asp Phe Ala Ile Pro Leu Gly Asn Thr Val Ser Val Gly Val Ser His Asn Arg Asp Thr Gly Thr Ala Leu Asn Val Ser Ala Ser Arg Gln Phe 595 600 Glu Gly Asp Tyr Leu Lys Ser Ala Thr Ala Asn Val Ser Lys Ala Phe 615 Asn Ser Arg Gln Asp Arg Ser Val Ser Gly Gly Ser Val Asn Phe 630 635 Asp Thr Pro Trp Asn Ser Asn Ile Leu Ser Val Gln Ser Gly Met Ser 650 645 Lys Gly Trp Asn Ser Thr Leu Thr Ser Asp Gly Ser Val Gly Trp Ser 660 665 Lys Glu Ala Ile Ala Ala Gly Lys Gly Thr Glu Ser Ala Gly Val Ile 680 Val Ser Thr Gly Leu Lys Ser Asp Glu Ala Leu Thr Leu Lys Leu Asn 695 700 Gly Arg Ala Glu Arg Ile Lys Gly Asp Lys Thr Trp Leu Ser Leu Pro 710 715 Ala Tyr Gln Ala Tyr Asp Leu Glu Val Met Asn Ser Glu Thr Gly Thr 730 Glu Ser Tyr Glu Ile Gly Ala Asn Ala Arg Arg His Ile Thr Val Tyr 745 Pro Gly Asn Thr Val Val Met Lys Pro Gln Val Lys Lys Ile Val Thr 760 Leu Phe Gly Arg Leu Val Asp Ala Asn Gly Ala Pro Ile Gly Ala Met

Gln Ile Lys Asn His Val Gly Leu Thr Arg Thr Glu Asn Asp Gly Arg 790 795 Phe Val Ile Asp Val Asp Lys Asn Asn Pro Val Leu Ser Ile Ala Thr 805 810 Pro Asp Asp Ser Val Cys Glu Val Arg Leu Asp Ile Glu Ser Asn Arg 820 825 Gly Ala Leu Trp Leu Gly Asp Ile Ser Cys Asp Lys Gly Asp Phe Val 840 845 Trp Gln Glu Ala Lys Gly Thr Gln Glu Arg Asp Asp Glu Lys Asp Ile 855 Arg Ser 865 <210> 6495 <211> 276 <212> PRT <213> Enterobacter cloacae <400> 6495 Ala Met Arg Gly Ser Phe Ala Leu Val Val Lys Ile Thr Met Leu Tyr 10 Glu Val Asp Thr Gly Met Ile Met Ile Asn Gly Glu Glu Glu Ser Ser 25 Ile Lys Leu Ser Asn Gln Ala Gly Arg Leu Leu Tyr Glu Leu Ile Ile 45 40 Asn Asn Gly Lys Thr Leu Asp Arg Asp Leu Ile Lys Lys Val Trp 55 Glu Asp His Gly Phe Ser Gly Ser Ser Val Ser Leu Asn Val Ala Ile 70 75 Ser Glu Ile Arg Lys Ala Phe Arg Thr Leu Gly Cys Asp Pro Leu Leu 85 90 Ile Lys Thr Ile Arg Gly Lys Gly Phe Ser Leu Ala Ala His Ile Glu 100 105 110 His His Thr Val Arg Pro Pro Val Val Ser Thr Leu Ser Glu Gln Ser 120 Ala Ser Glu Ser Phe Asp Thr Leu Ala His Lys Lys Asp Ala Asp Pro 135 140 Pro Lys Gln Leu Ile Ser Leu His Arg Leu Phe Ile Ser Leu Cys Thr 150 155 Leu Leu Leu Ile Thr Val Ile Gly Thr Ala Val Leu Leu His Gln 170 Arg Asp Ser Tyr Ala Glu Ser Leu Lys Asp Ser Asp Met His Leu Leu 180 185 Gly Lys Val Asp Arg Cys Thr Val Tyr Leu Ile Asp Lys Asn Met Tyr 195 200 Gln Pro Arg Gln His Tyr Phe Asn His Val Lys Glu Val Ile Ala Ser 215 220 Gln His Ile Asp Cys Gln His Gln Val Ala Asp Ala Tyr Tyr Ser Arg 230 235 Phe Lys Lys Ser Gln Ile Glu Asn Tyr Phe Leu Ala Ile Cys Tyr Gln 245 250 Gln Asp Ser Ile Asp Asp Tyr Lys Asn Cys Ile Ser Tyr Arg Ser Leu 265 Thr Gly Ser 275 <210> 6496 <211> 580 <212> PRT <213> Enterobacter cloacae

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Ala Phe Ser Gly Asn Gly Phe Thr Val Pro Ile Pro Gly Asn Val Leu 485 490 Val Gly Lys Ser Gln Thr Leu Met Ala His Asn Cys Lys Gly Glu Val 505 Leu Ser Ile Pro Ala Pro Ala Thr His Ala Glu Glu Trp Asp Lys Met 520 525 Ser Ser Gly Val Thr Asp Met Trp Leu Trp Lys Thr Pro Leu Ile Leu 535 540 Gln Phe Val Met Asp Asn Pro Val Ser Lys Thr Thr Tyr Asp Gly Asn 555 550 Ser Trp Phe Gly Glu Val Thr Ala Gln Gly Arg Ile Asp Val Ser Ala 570 Ser Trp Asn 580 <210> 6497 <211> 220 <212> PRT <213> Enterobacter cloacae <400> 6497 Ser Thr Met Thr Gly Lys Phe Leu Ala Ile Phe Ala Ile Asn Cys Phe Ile Ser Thr Gly Ala Asn Ala Leu Ile Ile Glu Ser Leu Asn Ile Asp 25 20 Phe Leu Pro Glu Arg Glu Val Val Phe Gln Pro Ile Lys Asn Asp Thr 40 45 Ser Glu Arg Gln Asn Tyr Thr Val Ser Leu Ile Gln Val Asp Val Pro 55 Lys Glu Lys Gly Lys Glu Thr Glu Ile Lys Asp Gly Glu Val Met Tyr 75 70 Ser Pro Lys Gln Leu Thr Leu Gly Ser Gly Glu Arg Ala Gly Phe Lys 90 Phe Tyr Tyr Thr Gly Pro His Asp Asn Lys Glu Arg Tyr Tyr Arg Val 105 110 Lys Phe Thr Glu Thr Pro Leu Gln Ala Lys Val Ile Thr Arg Lys Gly 125 120 Gln Arg Ile Gln Ser Asp Val Val Val Ser Leu Glu Ala Ile Leu Ile 135 140 Val Arg Pro Trp Thr Arg His Phe Asp Tyr Ala Phe Ser Asn Gly Val 150 155 Val Ser Asn Thr Gly Asn Thr Tyr Phe Lys Tyr Val Ser Ser Val Gly 165 170 Cys Ser Thr Gln Tyr Asn Asn Ser Lys Tyr Ile Pro Pro Gly Gln Arg 185 Leu Glu Ile Asp Asn Ala Gly Gln Ala Ala Arg Arg Met Ile Ile Tyr 200 Gly Asn Lys Ile Ile Pro Leu Thr Thr Cys Pro 220 <210> 6498 <211> 357 <212> PRT <213> Enterobacter cloacae <400> 6498 Glu Glu Pro Met Met Lys Asn Thr Thr Tyr Leu Thr Asp Glu Asp Arg 10 Trp Gln Ala Val Leu Ala Arg Asp Pro Arg Ala Asp Asn Gln Phe Val 25

Phe Ala Val Gln Thr Thr Gly Ile Tyr Cys Arg Pro Ser Cys Arg Ala

40 4.5 Arg His Ala Leu Arg Lys Asn Val Cys Phe Tyr Pro Asp Ala His Gln 55 60 Ala Ala Gln Ala Gly Phe Arg Pro Cys Lys Arg Cys Arg Pro Asp Gln 70 75 Gly Asp Pro Met Ala Gln Lys Lys Ala Asn Ile Ala Leu Ala Cys Arg 90 95 Leu Leu Glu Gln Asp Ala Ser Leu Asn Leu Glu Ala Leu Ala Gln Gln 105 Val Ala Met Ser Pro Phe His Phe His Arg Leu Phe Lys Ser Val Thr 120 125 Gly Met Thr Pro Lys Ala Trp Gln Gln Ala Ala Arg Glu Gln Arg Leu 135 140 Arg Ser Leu Leu Ala Gln Gly Gly Lys Ile Thr Asp Ala Val Leu Ala 155 150 Ala Gly Phe Pro Asp Gly Ser Ser Tyr Tyr Arg Lys Ala Asn Gly Ala 170 165 Leu Gly Met Thr Ala Lys Gln Tyr Arg Asn Gly Glu Ala Ala Val Arg 185 190 Tyr Ala Ile Ser Asp Cys Ser Leu Gly Arg Cys Leu Val Ala Glu Ser 200 Glu Arg Gly Ile Cys Ala Ile Leu Leu Gly Asp Asp Asp Ala Gly Leu 215 220 Thr Ala Glu Leu Leu Ser Leu Phe Pro Leu Ala Val Arg Glu Pro Met 230 235 Glu Gly Ala Phe Ala Gly Arg Val Arg Gln Val Ile Ala Ser Val Asp 250 Ser Arg Ala Thr Ser Leu Thr Leu Pro Leu Asp Ile Arg Gly Thr Ala 265 270 Phe Gln Gln Gln Val Trp Gln Ala Leu Arg Ala Ile Pro Cys Gly Glu 280 Thr Ala Ser Tyr Gln Gln Val Ala Lys Ala Ile Gly Lys Pro Asn Ala Val Arg Ala Val Ala Gly Ala Cys Gly Ala Asn Lys Leu Ala Ile Val 310 Ile Pro Cys His Arg Val Val Arg Asn Asp Gly Ala Leu Ser Gly Tyr 325 330 Arg Trp Gly Ala Ala Arg Lys Val Leu Leu Leu Lys Arg Glu Ala Asn Asn Pro Glu Glu 355 <210> 6499 <211> 556 <212> PRT <213> Enterobacter cloacae <400> 6499 Phe Phe Leu Ser Gly Leu Leu Cys Met Gln Leu Leu Leu Val Trp 10 Arg Gln Tyr Arg Trp Pro Phe Ile Ala Val Met Ala Leu Ser Leu Ala

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 Phe Phe Leu Ser Gly Leu Leu Cys Met Gln Leu Leu Leu Leu Leu Val Trp

 1
 5
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 15

 Arg Gln Tyr Arg Trp Pro Phe Ile Ala Val Met Ala Leu Ser Leu Ala 20
 25
 30

 Ser Ala Ala Leu Gly Ile Gly Leu Ile Ala Phe Ile Asn Val Arg Leu 35
 40
 45

 Ile Glu Met Val Asp Thr Ser Leu Ser Val Leu Pro Glu Phe Leu Gly 50
 55
 60

 Leu Leu Leu Leu Leu Met Ala Val Thr Leu Gly Ser Gln Leu Ala Leu 65
 70
 75
 80

 Thr Ala Leu Gly His His Phe Val Phe Arg Leu Arg Ser Glu Phe Ile 85
 90
 95

 Lys Arg Ile Leu Asp Thr Gln Val Glu Arg Ile Glu Gln Leu Gly Ser

100 105 110 Ala Ser Leu Leu Ala Gly Leu Thr Ser Asp Val Arg Ala Ile Thr Ile 115 120 125 Ala Phe Val Arg Leu Pro Glu Leu Val Gln Gly Ile Ile Leu Thr Phe 140 135 Gly Ser Ala Ala Tyr Leu Ala Trp Leu Ser Ser Lys Met Leu Ala Val 155 150 Thr Ala Leu Trp Ile Val Ile Thr Ile Trp Gly Gly Phe Leu Leu Val 170 Ser Arg Val Tyr Lys His Met Ala Val Leu Arg Glu Thr Glu Asp Lys 185 Leu Tyr Asn Asp Tyr Gln Thr Val Leu Glu Gly Arg Lys Glu Leu Thr 200 Leu Asn Arg Glu Arg Ala Glu His Ile Phe Asn His Leu Tyr Ile Pro 215 · 220 Asp Ala His Glu Tyr Arg His His Ile Ile Arg Ala Asp Thr Phe His 230 235 Leu Ser Ala Val Asn Trp Ser Asn Ile Met Met Leu Gly Ala Ile Gly 250 245 Leu Val Phe Trp Met Ala Asn Ser Leu Gly Trp Ala Asp Thr Asn Val 260 265 Ala Ala Thr Tyr Ser Leu Thr Leu Leu Phe Leu Arg Thr Pro Leu Leu 280 285 Ser Ala Val Gly Ala Leu Pro Thr Leu Leu Ser Ala Gln Val Ala Phe 300 295 Asn Lys Leu Lys Lys Phe Asp Leu Ala Pro Phe Lys Ala Glu Phe Pro 315 310 Arg Pro Gln Ala Phe Pro Asn Trp Gln Thr Leu Glu Leu Arg Asn Val 330 325 Thr Phe Arg Tyr Gln Asp Asn Ala Phe Ser Val Gly Pro Ile Asn Leu 340 345 Thr Ile His Arg Gly Glu Leu Leu Phe Leu Ile Gly Gly Asn Gly Ser 360 365 Gly Lys Ser Thr Leu Ala Met Leu Leu Thr Gly Leu Tyr Gln Pro Gln 380 375 Ser Gly Glu Ile Leu Leu Asp Gly Lys Ala Leu Ser Ala Glu Lys Pro 390 395 Glu Asp Tyr Arq Lys Leu Phe Ser Ala Val Phe Thr Asp Val Trp Leu 410 405 Phe Asp Arg Leu Leu Gly Pro Glu Gly Gln Gln Ala Asp Pro Ala Leu 425 420 Val Glu Lys Trp Leu Ala His Leu Gln Met Ser His Lys Leu Glu Leu 440 Gln Asp Gly Lys Ile Leu Asn Leu Lys Leu Ser Lys Gly Gln Lys Lys 455 Arg Val Ala Leu Leu Ala Leu Ala Glu Glu Arg Asp Ile Ile Leu 470 475 Leu Asp Glu Trp Ala Ala Asp Gln Asp Pro His Phe Arg Arg Glu Phe 490 485 Tyr Gln Val Leu Leu Pro Leu Met Gln Ala Met Gly Lys Thr Ile Phe 500 505 Ala Ile Ser His Asp Asp His Tyr Phe Ile His Ala Asp Arg Leu Leu 520 525 Glu Met Arg Asp Gly Lys Leu Ser Glu Leu Thr Gly Asp Glu Arg Asp 535 540 Ala Ala Ser Arg Asp Ala Val Ala Arg Thr Ala 550

<sup>&</sup>lt;210> 6500

<sup>&</sup>lt;211> 345

<sup>&</sup>lt;212> PRT

## <213> Enterobacter cloacae

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<210> 6501

<211> 131

<212> PRT

<213> Enterobacter cloacae

## <400> 6501

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Leu Leu Thr Ala Cys Asp Ser Ser Thr Gln Pro Ala Lys Ile Asp Ala 20 25 30

Pro Ala Ala Thr Val Leu Glu Gly Lys Thr Met Gly Thr Phe Trp Arg 35 40 45

Val Ser Val Met Asp Ile Asp Lys Ser Arg Ala Glu Glu Leu Arg Gly

55 60 Lys Ile Gln Ala Gln Leu Asp Ala Asp Asp Gln Leu Leu Ser Thr Tyr 70 75 Lys Asn Asp Ser Ala Leu Met Arg Phe Asn Arg Ser Ser Gln His Leu 85 90 Ala Val Ala Gly Glu Arg Ser Asn Gly Arg Tyr Arg His Gly Ser His 100 105 Ala Arg Gly Lys Gln Asn Gln Arg Arg Asn Gly Cys Asp Gly Gly Ala 120 Arg Trp 130 <210> 6502 <211> 206 <212> PRT <213> Enterobacter cloacae <400> 6502 Asn Leu Trp Gly Phe Gly Pro Asn Lys Gln Pro Val Thr Thr Pro Asp Gln Ala Ala Ile Asp Asp Ala Arg Ala Arg Thr Gly Leu Gln His Leu 20 25 Ala Val Ile Ser Gln Tyr Gly Gln Gln Tyr Leu Gln Lys Asp Ile Pro Asp Leu Phe Val Asp Leu Ser Thr Val Gly Glu Gly Tyr Ala Ala Asp 55 His Leu Ala Ala Leu Met Ala Gln Glu Gly Ile Pro Arg Tyr Leu Val 70 75 Ser Val Gly Gly Ala Leu Val Ser Arg Gly Met Asn Ala Ser Gly Arg 8.5 90 Pro Trp Arg Val Ala Ile Gln Lys Pro Thr Asp Gln Gln Asn Ala Val 100 105 Gln Ala Ile Val Asp Ile Asn Gly His Gly Ile Ser Thr Ser Gly Ser 120 125 Tyr Arg Asn Tyr Tyr Glu Leu Asp Gly Lys Arg Ile Ser His Val Ile 135 140 Asp Pro Gln Thr Gly Arg Pro Ile Thr His Asn Leu Val Ser Val Thr 150 155 . Val Ile Ala Pro Thr Ala Leu Glu Ala Asp Ala Trp Asp Thr Gly Leu 165 170 Met Val Leu Gly Thr Glu Lys Ala Lys Glu Val Val Arg Gln Glu Gly 185 Leu Ala Val Tyr Met Ile Thr Lys Glu Ala Asp Gly Phe 195 200 <210> 6503 <211> 224 <212> PRT <213> Enterobacter cloacae <400> 6503 Gly Glu Gln Pro Gly Gly Ile Met Leu Asp Leu Phe Ala Asp Ala Glu 10 Pro Trp Gln Glu Ser Leu Ala Pro Gly Ala Thr Ile Leu Arg Arg Phe 2.5 Ala Leu Ser Arg Ala Ala Ala Leu Phe Asp Gly Ile Lys Ala Val Thr 40 Ala Arg Ser Pro Phe Arg His Met Val Thr Pro Gly Gly Tyr Thr Met 55

Ser Val Ala Met Thr Asn Cys Gly Glu Leu Gly Trp Ala Thr Asn Glu

Arg Gly Tyr Val Tyr Ala Ala Tyr Asp Pro Leu Thr Asp Gln Pro Trp 85 90 Pro Pro Met Pro Glu Ala Phe Gln Ala Leu Cys His Asp Ala Ala Val 105 110 100 Ala Ala Gly Tyr Pro Asp Phe Arg Pro Asp Ala Cys Leu Ile Asn Arg 120 Tyr Ala Val Gly Ala Lys Leu Ser Leu His Gln Asp Lys Asp Glu Pro 135 140 Asp Leu Arg Ala Pro Ile Val Ser Val Ser Leu Gly Leu Pro Ala Val 150 155 Phe Gln Phe Gly Gly Leu Arg Arg Asn Asp Pro Leu Lys Arg Leu Met 165 170 Leu Glu His Gly Asp Val Val Trp Gly Gly Glu Ser Arg Leu Phe 180 185 Tyr His Gly Ile Gln Pro Leu Lys Pro Gly Asp His Pro Val Ala Gly 200 Ala Phe Arg Tyr Asn Leu Thr Phe Arg Gln Ala Ala Tyr Arg Glu 215

<210> 6504 <211> 480

<212> PRT <213> Enterobacter cloacae

<400> 6504 Leu Met Ser Val Leu Lys Lys Asn Ser Ala Arg Gln Arg Asp Gln Glu 10 Arg Ala Arg Leu Ile Trp Leu Leu Thr Thr Asp Lys Ala Val Thr Ser 25 Thr Leu Leu Gly Lys Leu Thr Leu Ala Glu Gln Tyr Asp Val Gly Thr 45 Leu Ala Asp Asp Ile Ala Glu Val Gly Ala Leu Val Ala His Leu Pro 5.5 Pro Pro Asp Leu Ala Asp Thr Leu Glu Ala Leu Pro Ser Glu Glu Arg 70 75 His Ala Leu Trp Arg Leu Val Gln Asp His Glu Arg Gly Gln Val Leu 90 85 Leu Glu Ala Ser Glu Asn Val Trp Asp Asp Leu Ile Asp Glu Met Ser 100 105 Asp Arg Asp Ile Leu Asp Ala Leu Gln Thr Leu Asp Ile Asp Glu Gln 120 Ile Tyr Leu Val Gln His Leu Pro Arg Asn Leu Thr Gly Arg Leu Leu 135 Ala Ser Leu Pro Ala Glu Glu Arg Ala Arg Val Arg Gln Val Met His 155 Tyr Glu Lys Asn Ser Val Gly Ala Ile Met Glu Phe Gly Val Ile Thr 170 Val Arg Pro Asp Val Thr Leu Gly Thr Val Gln Arg Tyr Leu Arg Arg 180 185 Leu Gly Ser Met Pro Asp Asn Thr Asp Lys Leu Phe Val Thr Ser Arg 200 195 Asp Lys Thr Leu Leu Gly Glu Leu Glu Leu Lys Thr Ile Leu Leu Asn 215 220 Ser Thr Gln Gln Arg Val Ser Glu Val Met Glu Thr Glu Pro Met Val 235 230 Phe Ser Pro Glu Asp Asp Ala Glu Lys Ala Ala Arg Thr Phe Glu Arg 245 250 Asp Asp Leu Val Ser Ala Ala Val Val Asp Ser Val Gly Lys Leu Met 265 270 Gly Arg Leu Thr Ile Asp Glu Ile Val Asp Val Val Tyr Glu Glu Thr 280

Asp Asn Asp Leu Arg Ala Leu Gly Gly Ile Ser Ala Glu Asp Asp Val 295 300 His Ala Ser Val Gly Lys Ala Val Lys Thr Arg Trp Ala Trp Leu Ala 310 315 Ile Asn Leu Cys Thr Ala Phe Val Ala Ser Arg Val Ile Asp Gly Phe 325 330 Glu His Thr Ile Ser Gln Leu Val Ala Leu Ala Ser Leu Met Pro Ile 345 340 Val Ala Gly Ile Gly Gly Asn Thr Gly Asn Gln Thr Ile Thr Met Ile 360 365 355 Val Arg Ala Leu Ala Leu Glu Asn Ile Gln Pro Gly Asn Phe Ser Trp 380 370 375 Leu Ile Phe Arg Glu Met Gly Val Ala Leu Ile Asn Gly Leu Val Trp 390 395 Gly Gly Ile Met Gly Gly Ile Thr Trp Trp Leu Tyr Asp Asp Met Ala 405 410 Leu Gly Gly Val Met Met Leu Ala Met Val Leu Asn Leu Val Ala 425 Ala Met Met Gly Val Ile Ile Pro Leu Thr Met Thr Arg Leu Gly Arg 440 Asp Pro Ala Val Gly Ser Ser Val Met Ile Thr Ala Ile Thr Asp Thr 455 Gly Gly Phe Phe Ile Phe Leu Gly Leu Ala Thr Ile Phe Leu Leu 475 <210> 6505 <211> 68 <212> PRT <213> Enterobacter cloacae <400> 6505 Ser Ala Ser Ala Ala Pro Tyr Pro Ala Arg Arg Thr Gly Ser Glu Ser 10 Cys Leu Pro Ser Pro Pro Arg Ala Glu Cys Thr Val Arg Arg Val Asp 25 Gly Pro Ser Gly Gln Ser Pro Ala Arg Arg Asn Leu Pro Pro Pro Ser 40 Pro Trp Pro Asp Ala Arg Arg Ala Gly Lys Gly Arg Asn Arg Ala Pro 55 Arg Arg Arg 65 <210> 6506 <211> 326 <212> PRT <213> Enterobacter cloacae <400> 6506 Leu Pro Cys Ser Phe Leu Leu Ala Val Gly Leu Asn Ala Val Ser Leu Ala Ala Lys Ala Asp Ala Pro Lys Glu Glu Thr Asp Val Leu Leu 25 Ile Gly Gly Gly Ile Met Ser Ala Thr Leu Gly Thr Tyr Leu Gln Glu 40 Leu Glu Pro Asn Trp Ser Met Thr Met Val Glu Arg Leu Asp Gly Val 55 Ala Gln Glu Ser Ser Asn Gly Trp Asn Asn Ala Gly Thr Gly His Ser 75 Ala Leu Met Glu Leu Asn Tyr Thr Pro Gln Lys Lys Asp Gly Ser Ile

90

Ser Ile Glu Lys Ala Val Glu Ile Asn Glu Ala Phe Gln Ile Ser Arg

100 105 110 Gln Phe Trp Ser His Gln Val Asn Ser Gly Val Leu His Asn Pro His 120 125 Ser Phe Ile Asn Thr Val Pro His Met Ser Phe Val Trp Gly Asp Gln 135 140 Asn Val Asn Phe Leu Arg Ala Arg Tyr Ala Ala Leu Gln Gln Ser Thr 150 155 Leu Phe Arg Gly Met Lys Tyr Ser Glu Asp His Ala Gln Ile Lys Glu 165 170 Trp Ala Pro Leu Val Met Glu Gly Arg Asp Pro Asn Gln Lys Val Ala 185 Ala Thr Arg Thr Glu Ile Gly Thr Asp Val Asn Tyr Gly Glu Ile Thr 200 Arg Gln Leu Val Ala Ser Leu Lys Lys Lys Glu Asn Phe Asn Leu Gln 215 220 Leu Ser Ser Glu Val Arg Gly Phe Lys Arg Asn Ala Asp Asn Ser Trp 230 235 Ser Val Thr Val Ala Asp Leu Lys Asn Asn Glu Ala Glu His Val Ile 245 250 Lys Ala Lys Phe Val Phe Ile Gly Ala Gly Gly Ala Ala Leu Lys Leu 260 265 Leu Gln Glu Ser Gly Ile Pro Glu Ala Asp Asp Tyr Ala Gly Phe Pro 275 280 285 Val Gly Gly Gln Phe Leu Val Ser Glu Asn Pro Glu Val Val Asn Arg 295 300 His Leu Pro Lys Val Ser Gly Gln Tyr Ser Thr Thr Arg Arg Gln Asp 315 310 Arg Val Arg Leu Glu Ala 325

<210> 6507

<211> 467 <212> PRT

<213> Enterobacter cloacae

<400> 6507

Ile Leu Phe Lys Gly Tyr Glu Ile Ile Val Ile Val Lys Phe Asn Asp Gly Leu Phe Val Gly Phe Trp Gln Thr Gly Trp His Pro Thr Ile Phe 25 Leu Ala Met Met Leu His Phe Val Ile Ala Arg Thr Glu Ala Cys Pro Tyr Gln Arg Ile Val Met Ser Leu Pro His Ser Ser Leu Pro Gln Glu Gly His Val Ala Thr Val Leu Arg Ser Pro His Arg Leu Met Arg Glu 75 Thr Leu Ala Gly Val Ile Thr Ala Leu Ala Leu Ile Pro Glu Val Ile 90 Ser Phe Ser Val Val Ala Gly Val Asp Pro Lys Val Ser Leu Ile Ala 100 105 110 Ser Val Val Leu Cys Phe Ala Leu Ser Leu Leu Gly Gly Arg Pro Ala 120 125 Met Val Thr Ala Ala Ala Gly Ser Val Ala Leu Val Ile Gly Pro Met 135 140 Val His Gln His Gly Val Gln Tyr Ile Leu Pro Ala Val Val Met Ala 150 155 Gly Met Ile Gln Ile Leu Phe Gly Ala Leu Gly Met Ala Arg Leu Met 170 Arq Phe Ile Pro Gln Ser Val Met Thr Gly Phe Val Asn Ala Leu Gly 185 Ile Leu Ile Phe Phe Ala Gln Val Pro His Phe Trp Ser Arg Ser Pro

200 195 205 Leu Ile Val Gly Leu Phe Val Leu Thr Leu Leu Ile Val Leu Trp Val 215 220 Pro Arg Tyr Ile Lys Ser Val Pro Ser Pro Leu Ile Ala Ile Val Leu 230 235 Leu Thr Leu Phe Thr Val Thr Ser Gly Gln Ile Leu Pro Thr Val Gly 245 250 Asp Glu Gly Ser Met Ser Gly Gly Leu Pro Gly Phe Thr Gln Leu Leu 265 Val Pro Leu Asn Leu Glu Thr Leu Ser Ile Ile Trp Pro Cys Ala Leu 280 Ser Ile Ala Phe Val Gly Leu Leu Glu Ser Leu Leu Thr Ala Lys Leu 295 Val Asp Glu Leu Thr Ala Thr Pro Ser Ser Lys Arg Arg Glu Ser Ile 310 315 Gly Leu Gly Val Gly Asn Ile Met Ala Gly Phe Tyr Gly Gly Ile Ala 325 330 Gly Cys Ala Met Ile Gly Gln Thr Ile Val Asn Val Glu Met Gly Lys 340 345 Gly Arg Ser Arg Ile Ser Thr Leu Ala Ala Gly Ile Val Leu Leu Val 360 355 365 Leu Val Thr Ala Leu Ser Glu Val Met Ala Lys Ile Pro Met Ala Val . 380 375 Leu Ala Gly Ile Met Ala Ile Val Ala Val Lys Thr Phe Ser Trp His 395 390 Ser Val Gln Pro Gly Thr Leu Lys Asn Ala Pro Val Ala Glu Thr Val 405 410 Val Met Leu Val Thr Val Val Ala Thr Val Tyr Thr Gly Asn Leu Ala 420 425 Ile Gly Val Leu Gly Gly Ile Val Met Met Phe Ile Leu Pro Ala Arg 435 440 Leu Lys Gln Lys Ala Leu Ala Arg Glu Glu Lys Ser Ser Pro Val Gln 450 455 Glu Lys 465 <210> 6508 <211> 202 <212> PRT

<213> Enterobacter cloacae

<400> 6508

Ile Met Gly Ile Phe Ser Arg Phe Ala Asp Ile Val Asn Ala Asn Ile Asn Ser Leu Leu Glu Lys Ala Glu Asp Pro Gln Lys Leu Val Arg Leu 25 Met Ile Gln Glu Met Glu Asp Thr Leu Val Glu Val Arg Ser Thr Ser 40 45 Ala Arg Ala Leu Ala Glu Lys Lys Gln Leu Thr Arg Arg Ile Glu Gln 55 Ala Thr Ala Gln Leu Asn Glu Trp Gln Glu Lys Ala Glu Leu Ala Leu 70 75 Arg Lys Asp Lys Glu Asp Leu Ala Arg Ala Ala Leu Ile Glu Lys Gln 85 90 95 Lys Leu Thr Asp Met Val Ala Thr Leu Glu His Glu Val Thr Leu Val 100 105 110 Asp Asp Thr Leu Thr Arg Met Lys Lys Glu Ile Gly Glu Leu Glu Asn 120 125 Lys Leu Ser Glu Thr Arg Ala Arg Gln Gly Ala Gly Ala Ala Pro 135 140

Pro Gly Leu Gln Ala Arg Pro Ala Thr Cys Val Ala Asn Trp Thr Ala

2683

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145
                   150
                                       155
Ala Asn Trp Met Lys Gln Trp Arg Val Ser Asn Arg Leu Asn Val Val
               165
                            170
Ser Thr Thr Trp Lys Arg Lys Pro Lys Ala Thr Ala Ser Val Ser Arg
           180
                               185
Lys Pro Trp Ile Ser Ser Leu Leu Thr
<210> 6509
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 6509
Ala Cys Arg Ile Val Arg Gln Gly Val His Met Ser Ala Leu Phe Leu
Ala Ile Pro Leu Thr Ile Phe Val Leu Phe Val Leu Pro Ile Trp Leu
                                25
Trp Leu His Tyr Ser Asn Arg Ser Ser Arg Gly Glu Leu Ser Gln Ser
                            40
Glu Gln Gln Arg Leu Ala Gln Leu Ser Ala Glu Ala Asn Lys Met Arg
                        55
Glu Arg Ile Gln Ala Leu Glu Ala Ile Leu Asp Ala Glu His Pro Asn
Trp Arg Glu Arg
<210> 6510
<211> 205
<212> PRT
<213> Enterobacter cloacae
<400> 6510
Leu Pro Leu Asn Glu Gly Ser Pro Met Ala Thr Lys Arg Arg Ala Glu
                                    10
Thr Ala Gln Glu Asn Arg Glu Lys Met Ile Gln Ala Ala Arg Lys Ala
Phe Ala Glu Lys Gly Tyr Ala Ala Ala Ser Met Asp Glu Leu Thr Ala
                            40
Ser Val Gly Leu Thr Arg Gly Ala Leu Tyr His Asn Phe Asn Asp Lys
                        55
Lys Gly Leu Leu Ala Ala Val Val Ala Gln Ile Asp Ser Glu Met Ala
                    70
Ala Asn Ala Lys Ala Ile Ala Ala Ala Asp Asp Asp Trp Glu Arg
Leu Leu Ala Glu Gly Ile Ala Tyr Ile Lys Met Ala Leu Val Pro Glu
Val Gln Arg Ile Val Leu Leu Asp Gly Pro Ala Val Leu Gly Asp Pro
                            120
Ala Gln Trp Pro Ser Gln Asn Asn Cys Leu Glu Ser Thr Arg Gln Thr
                       135
                                            140
Ile Glu Lys Met Met Glu Cys Asn Val Ile Lys Lys Met Asp Ala Arg
                   150
                                        155
Val Ala Ala His Leu Leu Asn Gly Ala Ala Leu Asn Ala Ala Leu Leu
               165
                                    170
Ile Ala Ala Ser Asp Glu Pro Gln Lys Thr Leu Pro His Ala Ile Glu
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185

200

205

Val Phe Thr Leu Leu Ala Ser Gly Leu Arg Asn Gly

<211> 98 <212> PRT <213> Enterobacter cloacae <400> 6511 Lys Gln Thr Gln Arg Asn Pro Cys Thr Ser Thr Gly Arg Trp Arg Cys 10 Pro Thr Arg Ala Ala Ser Ser Ser Arg Asp Val Arg Arg Gln Leu Asp 20 25 Ser Gly Lys Leu Asp Glu Ala Met Ala Arg Phe Glu Ser Phe Glu Arg 40 45 Arg Ile Asp His Met Glu Ala Glu Ala Glu Ser His Ser Ile Gly Lys 55 60 Gln Lys Thr Leu Asp Gln Gln Phe Ala Asp Leu Lys Ala Asp Asp Glu 70 75 Ile Ser Glu Gln Leu Ala Ala Leu Lys Ala Lys Met Lys Gln Asp Asn 90 Gln <210> 6512 <211> 143 <212> PRT <213> Enterobacter cloacae <400> 6512 Asn Ala Arg Thr Tyr Ser Gly Ala Gly Ser His Pro Gly Arg Gly Thr 10 Pro Lys Leu Glu Gly Thr Val Met Ala Gly Leu Asn Leu Asn Lys Lys 25 Leu Trp Arg Ile Pro Gln Gln Gly Met Val Arg Gly Val Cys Ala Gly 40 Leu Ala His Tyr Leu Asp Val Pro Val Lys Leu Val Arg Val Val Thr 55 60 Val Leu Ser Ile Phe Phe Gly Leu Ala Phe Ile Thr Leu Val Ala Tyr 70 75 Ile Ile Leu Ser Phe Val Leu Asp Pro Met Pro Glu Gly Glu Leu Asn 90 8.5 Ala Glu Asn Thr Pro Thr Ser Arg Asp Leu Leu Asn Ala Val Asp Glu 105 Gln Leu Ser Ala Gly Glu Lys Arg Leu Arg Glu Met Glu Arg Tyr Val 120 Thr Ser Asp Thr Phe Thr Leu Arg Ser Arg Phe Arg Gln Leu 130 · 135 <210> 6513 <211> 79 <212> PRT <213> Enterobacter cloacae <400> 6513 Glu Arg Thr Tyr Met Lys Gln Asn Trp Gln Gln Ala Gly Gln Lys Val 10 Lys Pro Gly Leu Lys Ile Ala Gly Lys Leu Val Leu Met Thr Ala Leu 25 Arg Tyr Gly Pro Ala Gly Val Ala Gly Trp Ala Ile Lys Ser Val Ala 40 4.5 Arg Lys Pro Val Arg Met Met Leu Ala Val Ala Leu Glu Pro Leu Leu 55

Gln Lys Leu Ala Lys Arg Val Ser Arg Arg Tyr Leu Ser Arg

<210> 6514 <211> 332 <212> PRT <213> Enterobacter cloacae <400> 6514 Gly Val Val Asn Phe Ile Met Ala Glu Tyr Lys Asp Asn Leu Leu Gly 10 Glu Ala Asn Ser Phe Leu Glu Val Leu Glu Gln Val Ser Arg Leu Ala 25 Pro Leu Asn Lys Pro Val Leu Ile Ile Gly Glu Arg Gly Thr Gly Lys 40 Glu Leu Ile Ala Asn Arg Leu His Phe Leu Ser Gly Arg Trp Asp Gly 55 Pro Phe Ile Ser Leu Asn Cys Ala Ala Leu Asn Glu Asn Leu Leu Asp Thr Glu Leu Phe Gly His Glu Ala Gly Ala Phe Thr Gly Ala Gln Lys 90 Arg His Pro Gly Arg Phe Glu Arg Ala Asp Gly Gly Thr Leu Phe Leu 105 Asp Glu Leu Ala Thr Ala Pro Met Leu Val Gln Glu Lys Leu Leu Arg 120 Val Ile Glu Tyr Gly Glu Leu Glu Arg Val Gly Gly Ser Gln Pro Leu 135 140 Gln Val Asn Val Arg Leu Val Cys Ala Thr Asn Ala Asp Leu Pro Ala 150 155 Met Val Ala Glu Asp Lys Phe Arg Ala Asp Leu Leu Asp Arg Leu Ala 165 170 Phe Asp Val Val Gln Leu Pro Pro Leu Arg Glu Arg Arg Ser Asp Ile 185 190 Met Leu Leu Ala Asp Gln Phe Ala Ile Gln Met Cys Arg Glu Leu Gly 200 195 Leu Pro Leu Phe Pro Gly Phe Ser Glu Arg Ala Thr Gly Thr Leu Leu 215 220 Gly Tyr His Trp Pro Gly Asn Ile Arg Glu Leu Lys Asn Val Val Glu 230 235 Arg Ser Val Tyr Arg His Gly Ser Ser Glu Thr Glu Leu Asp Asn Ile 250 245 Ile Leu Asp Pro Phe Arg Arg Glu Asp Lys Gln Pro Pro Ala Pro Ala 265 Thr Arg Gln Gln Asp Pro Ala Leu Pro Leu Asp Leu Arg Gln Phe Gln 285 275 280 His Gln Glu Lys Asn Leu Leu Glu Gln Ser Leu Lys Glu Ala Lys 300 295 Tyr Asn Gln Lys Arg Ala Ala Glu Leu Leu Gly Leu Thr Tyr His Gln 315 310 Leu Arg Ala Leu Leu Lys Lys His Gln Met Arg <210> 6515 <211> 330 <212> PRT <213> Enterobacter cloacae <400> 6515 Glu Arg Thr Arg Gly Glu Glu Thr Met Ile Ile Phe Thr Leu Arg Arg 10 Leu Leu Leu Leu Val Thr Leu Phe Phe Leu Thr Phe Val Gly Phe 25

Ser Leu Ser Tyr Phe Thr Pro His Ala Pro Leu Gln Gly Ser Ser Leu

40 Trp Asp Ala Trp Leu Phe Trp Phe Asn Gly Leu Leu His Trp Asp Phe 55 60 Gly Val Ser Ser Ile Asn Gly Gln Leu Ile Ser Glu Gln Leu Lys Val 70 75 Val Phe Pro Ala Thr Met Glu Leu Cys Val Leu Ala Phe Gly Phe Ala 90 Leu Met Val Gly Ile Pro Val Gly Met Leu Ala Gly Ile Tyr Arg Asn 105 Lys Trp Gln Asp Lys Phe Ile Ser Ala Leu Ala Leu Ile Gly Phe Ser 120 Ile Pro Val Phe Trp Leu Ala Leu Leu Leu Thr Leu Phe Phe Ser Leu 135 Thr Leu Gly Trp Leu Pro Val Ser Gly Arg Phe Asp Leu Leu Tyr Asn 150 155 Val Gln Thr Val Ser Gly Phe Ala Ile Val Asp Ala Trp Leu Ser Asp 170 165 Ser Val Trp Arg Asp Glu Met Ile Val Ser Ala Leu Arg His Met Val 180 185 Leu Pro Val Leu Thr Leu Ala Val Ala Pro Thr Thr Glu Val Ile Arg 200 205 Leu Met Arg Ile Ser Thr Ile Asp Val Phe Asp Gln Asn Tyr Val Lys 215 220 Ala Ala Ala Thr Arg Gly Leu Ser Arg Leu Thr Ile Leu Arg Arg His 230 235 Val Leu His Asn Ala Leu Pro Pro Val Ile Pro Arg Leu Gly Leu Gln 245 250 Phe Ser Thr Met Leu Thr Leu Ala Met Ile Thr Glu Met Val Phe Ser 265 Trp Pro Gly Leu Gly Arg Trp Met Ile Asn Ala Ile Arg Gln Gln Asp 275 280 Tyr Ala Ala Ile Ser Ala Gly Val Met Val Ile Gly Ser Leu Val Ile 295 300 Ile Val Asn Val Val Ser Asp Ile Leu Gly Ala Met Ala Asn Pro Leu 310 315 Lys His Lys Glu Trp Tyr Ala Leu Arg 325

<210> 6516

<211> 347

<212> PRT

<213> Enterobacter cloacae

<400> 6516

Pro Ala Gly Arg Arg Asp Pro Pro Arg Asn Gln Cys Gly Gly Ala Ile 10 Met Pro Leu Leu Asp Ile Arg Asn Leu Thr Ile Glu Ile Lys Thr Gly 25 Glu Gly Trp Val Lys Ala Val Asp Arg Ile Ser Ile Thr Leu Ala Glu 40 Gly Glu Ile Arg Gly Leu Val Gly Glu Ser Gly Ser Gly Lys Ser Leu 55 60 Ile Ala Lys Ala Ile Cys Gly Val Ala Lys Asp Asn Trp Arg Val Thr 70 75 Ala Asp Arg Met Arg Phe Asp Asp Ile Asp Leu Leu Arg Leu Ser Pro 90 Arg Glu Arg Arg Lys Leu Val Gly His Asn Val Ser Met Ile Phe Gln 105 Glu Pro Gln Ser Cys Leu Asp Pro Ser Glu Arg Val Gly Lys Gln Leu 120 Met Gln Asn Ile Pro Gly Trp Thr Tyr Lys Gly Arg Trp Trp Gln Arg

135 140 Phe Gly Trp Arg Lys Arg Arg Ala Ile Glu Leu Leu His Arg Val Gly 150 155 Ile Lys Asp His Lys Asp Ala Met Arg Ser Phe Pro Tyr Glu Leu Thr 165 170 Asp Gly Glu Cys Gln Lys Val Met Ile Ala Ile Ala Leu Ala Asn Gln 185 Pro Arg Leu Leu Ile Ala Asp Glu Pro Thr Asn Ala Met Glu Pro Thr 200 Thr Gln Ala Gln Ile Phe Arg Leu Leu Thr Arg Leu Asn Gln Asn Asn 215 220 Asn Thr Thr Ile Leu Leu Ile Ser His Asp Leu Gln Met Leu Ser Lys 230 235 Trp Ala Asp Lys Ile Asp Val Met Tyr Cys Gly Gln Thr Val Glu Thr .245 250 Ala Pro Ser Glu Asp Leu Val Thr Thr Pro His His Pro Tyr Thr Gln 260 265 270 Ala Leu Ile Arg Ala Ile Pro Asp Phe Gly Ser Ala Met Pro His Lys 280 285 Ser Arg Leu Asn Thr Leu Pro Gly Ala Ile Pro Leu Leu Glu Ser Leu 295 300 Pro Ile Gly Cys Arg Leu Gly Pro Arg Cys Pro Tyr Ala Gln Arg Lys 315 310 Cys Ile Glu Thr Pro Arg Leu Thr Gly Pro Lys Asn His Leu Phe Ala 325 330 Cys His Phe Pro Leu Asn Met Glu Arg Glu 340

<210> 6517 <211> 587

<212> PRT <213> Enterobacter cloacae

<400> 6517

Gly His Cys Ser Lys Asn Ile Lys Cys Ala Asp Ile Ile Ser Thr Tyr Pro Gln Thr Phe Leu Arg Ser Arg Arg Lys Cys Asp Thr Leu Cys Arg 25 Ser Asn Leu Lys Thr Leu Lys Thr Met Arg Leu Val Leu Ser Ser Leu 40 Phe Ala Leu Gly Leu Phe Ser Asn Leu Ala Phe Ala Ala Pro Asp Arg 55 Ala Val Pro Pro Asp Ile Arg Glu Ser Gly Phe Val Tyr Cys Val Ser 70 Gly Gln Val Asp Thr Phe Asn Pro Gln Lys Ala Gly Ser Gly Leu Ile 90 Val Asp Thr Leu Ala Ala Gln Leu Tyr Asp Arg Leu Leu Asp Val Asp 105 Pro Tyr Thr Tyr Arg Leu Val Pro Glu Leu Ala Glu Ser Trp Glu Val 120 125 Leu Asp Asn Gly Ala Thr Tyr Arg Phe Arg Leu Arg Asp Asp Val Ala 135 140 Phe Gln His Thr Pro Trp Phe Thr Pro Thr Arg Lys Leu Asn Ala Asp 150 155 Asp Val Val Phe Thr Phe Gln Arg Ile Phe Asn Arg Asn His Pro Trp 165 170 His Asn Val Asn Gly Gly Asn Phe Pro Tyr Phe Asp Ser Leu Gln Phe 185 190 Ala Asp Ser Val Lys Ser Val Arg Lys Leu Asp Asn Arg Thr Val Glu 200

Phe Arg Leu Thr Arg Pro Asp Ala Ser Phe Leu Trp His Leu Ala Thr

215 220 210 His Tyr Ala Ser Val Met Ser Ala Glu Tyr Ala Asp Gln Leu Thr Lys 230 235 Lys Asp Arg Gln Glu Arg Leu Asp Arg Glu Pro Val Gly Thr Gly Pro 250 245 Phe Gln Leu Ala Glu Tyr Arg Ala Gly Gln Tyr Ile Arg Leu Gln Arg 265 His Asp Arg Phe Trp Arg Gly Lys Pro Leu Met Pro Gln Val Ile Val 280 285 Asp Leu Gly Ser Gly Gly Thr Gly Arg Leu Ser Lys Leu Leu Thr Gly 295 300 Glu Cys Asp Val Leu Ala Trp Pro Ala Ala Ser Gln Leu Thr Ile Leu 315 310 Arg Asp Asp Pro Arg Leu Arg Leu Thr Leu Arg Pro Gly Met Asn Ile 325 330 Ala Tyr Leu Ala Phe Asn Thr Asp Lys Pro Pro Leu Asn Asn Pro Ala 345 340 Val Arg His Ala Leu Ala Leu Ala Ile Asn Asn Gln Arg Leu Met Gln 365 360 Ser Ile Tyr Tyr Gly Thr Ala Glu Thr Ala Ala Ser Ile Leu Pro Arg 370 380 375 Ala Ser Trp Ala Tyr Asp Gly Glu Ala Lys Ile Thr Glu Tyr Asn Pro 395 390 Ala Lys Ala Arg Glu Gln Leu Lys Ala Leu Gly Ala Glu Asn Leu Thr 410 405 Leu Gln Leu Trp Val Pro Thr Ser Ser Gln Ala Trp Asn Pro Ser Pro 425 420 Leu Lys Thr Ala Glu Leu Leu Gln Ala Asp Met Ala Gln Val Gly Val 440 Lys Val Ile Ile Val Pro Val Glu Gly Arg Phe Gln Glu Ala Arg Leu 460 455 Met Asp Met Asn His Asp Leu Thr Leu Ala Gly Trp Ser Thr Asp Ser 470 475 Asn Asp Pro Asp Ser Phe Phe Arg Pro Leu Leu Ser Cys Ala Ala Ile 490 485 Asn Ser Gln Thr Asn Tyr Ala His Trp Cys Asn Arg Glu Phe Asp Ala 500 505 Val Leu Gln Lys Ala Leu Ala Ser Gln Gln Leu Ala Ser Arg Ile Glu 520 Ala Tyr Asp Glu Ala Gln Asn Ile Leu Ala Arg Glu Leu Pro Val Leu 535 540 Pro Leu Ala Ser Ser Leu Arg Leu Gln Ala Tyr Arg Tyr Asp Ile Lys 550 555 560 Gly Leu Val Leu Ser Pro Phe Gly Asn Ala Ser Phe Ala Gly Val Thr 570 Arg Glu Lys Glu Gln Glu Val Lys Lys Pro

<210> 6518

<211> 302

<212> PRT

<213> Enterobacter cloacae

## <400> 6518

 Ser Ile Arg Asn Gly Met Pro Tyr Asp Asn Val Tyr Ser Glu Lys Arg

 1
 5
 10
 15

 Thr Pro Gly Ala Leu Arg Thr Val Trp Arg Asn Phe Tyr Gly Asp Thr
 20
 25
 30

 Thr Ala Met Ile Gly Phe Tyr Gly Cys Ile Gly Leu Val Leu Leu Cys
 35
 40
 45

 Val Leu Gly Ser Trp Phe Ala Pro Tyr Gly Ile Asp Gln Gln Phe Leu

55 Gly Tyr Gln Leu Leu Pro Pro Ser Trp Ser Arg Tyr Gly Glu Val Ser 75 70 Phe Phe Leu Gly Thr Asp Asp Leu Gly Arg Asp Val Leu Ser Arg Leu 90 85 Leu Ser Gly Ala Ala Pro Thr Val Gly Gly Ala Phe Val Val Thr Leu 105 100 Ala Ala Ala Ile Cys Gly Leu Ala Leu Gly Ile Phe Ala Gly Ser Thr . 120 125 His Gly Leu Arg Ser Ala Val Leu Asn His Ile Leu Asp Thr Leu Leu 135 140 Ser Ile Pro Ser Leu Leu Ala Ile Ile Val Val Ala Phe Ala Gly 155 Pro His Leu Thr His Ala Met Phe Ala Val Trp Leu Ala Ile Leu Pro 170 Arg Met Val Arg Ser Val Tyr Ser Leu Val His Asp Glu Leu Glu Lys 185 Glu Tyr Val Val Ala Ala Arg Leu Asp Gly Ala Thr Thr Phe Asn Ile 200 Leu Trp Phe Ala Val Leu Pro Asn Ile Ala Ala Gly Leu Val Thr Glu 215 220 Ile Thr Arg Ala Leu Ser Met Ala Ile Leu Asp Ile Ala Ala Leu Gly 230 235 Phe Leu Asp Leu Gly Ala Gln Leu Pro Ser Pro Glu Trp Gly Ala Met 245 250 Leu Gly Asp Ala Leu Glu Leu Ile Tyr Val Ala Pro Trp Thr Val Met 265 260 Leu Pro Gly Ala Ala Ile Met Val Ser Val Leu Leu Val Asn Leu Leu 280 Gly Asp Gly Ile Arg Arg Ala Ile Asn Ala Gly Val Gln 295

<210> 6519 <211> 275

<212> PRT

<213> Enterobacter cloacae

<400> 6519

Thr Trp Arg Glu Ser Glu Met Val Glu Thr Leu Leu Glu Val Arg Asn 10 Leu Ser Lys Thr Phe Arg Tyr Arg Thr Gly Leu Phe His Arg Gln Thr 25 Val Glu Ala Val Lys Pro Leu Ser Phe Thr Leu Arg Glu Lys Gln Thr Leu Ala Ile Ile Gly Glu Asn Gly Ser Gly Lys Ser Thr Leu Ala Lys Met Leu Ala Gly Met Val Glu Pro Ser Gly Gly Glu Ile Leu Ile Asp 75 Asp His Pro Leu Glu Phe Gly Asp Tyr Ser Phe Arg Ser Gln Arg Ile 85 Arg Met Ile Phe Gln Asp Pro Ser Thr Ser Leu Asn Pro Arg Gln Arg 105 Ile Ser Gln Ile Leu Asp Phe Pro Leu Arg Leu Asn Thr Asp Leu Glu 120 125 Pro Glu Ala Arg Arg Lys Arg Ile Val Glu Thr Leu Arg Leu Val Gly 135 140 Leu Leu Pro Asp His Val Ser Tyr Tyr Pro His Met Leu Ala Pro Gly 150 155 Gln Lys Gln Arg Leu Gly Leu Ala Arg Ala Leu Ile Leu Arg Pro Lys 165 170 Val Ile Ile Ala Asp Glu Ala Leu Ala Ser Leu Asp Met Ser Met Arg

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180
                                185
Ser Gln Leu Ile Asn Leu Met Leu Glu Leu Gln Glu Lys Gln Gly Ile
                            200
Ser Tyr Ile Tyr Val Thr Gln His Leu Gly Met Met Lys His Ile Ser
                        215
                                            220
Asp Gln Val Leu Val Met His Gln Gly Glu Val Val Glu Arg Gly Ser
                    230
                                        235
Thr Ala Asp Val Leu Ala Ser Pro Leu His Asp Leu Thr Lys Arg Leu
                                    250
                245
Ile Ala Gly His Phe Gly Glu Ala Leu Thr Ala Asp Ala Trp Arg Lys
                                265
Asp Arg
        275
<210> 6520
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6520
Ala Arg Leu Ser Ser Pro Phe Asn Pro Ala Arg Leu Asn Pro Val Ser
Gly Lys Val Ser Pro His Asn Gly Ile Asp Tyr Ser Met Pro Met Asn
            20
Thr Lys Ile Val Ser Val Ile Asp Gly Lys Ile Thr Arg Ala Glu Tyr
                            40
Asn Ser Thr Met Gly Tyr Phe Val Glu Val Thr Gly Lys Ala Gly Val
                        55
Lys Thr Arg Tyr Leu His Leu Asn Lys Ile Leu Val Thr Lys Gly Ala
                    70
                                        75
Arg Val Thr Arg Gly Gly Ala Ile Ala Leu Ser Gly Asn Ser Gly Arg
                85
                                    90
Ser Ser Gly Pro His Leu His Tyr Glu Leu Val Ile Asn Asn Pro
                                105
            100
                                                    110
Val Asn Ser Leu Ala Phe Arg Ala Ala Ala Pro Ala Asp Asn Lys Leu
                            120
                                                125
Glu Gln His Ala Phe Ala His Ala`Arg Asp Tyr Glu Arg Tyr Leu Asp
                        135
145
<210> 6521
<211> 447
<212> PRT
<213> Enterobacter cloacae
<400> 6521
Pro Ser Gly Ala Tyr Ala Arg Cys Phe Asp Phe Leu Ala Glu Asn Cys
                                    10
Met Ala Ser Leu Lys Ile Lys Tyr Ala Ala Ile Ile Ile Ser Ser Leu
Ile Ala Gly Gly Leu Ile Ser Val Thr Ala Trp Gln Tyr Val Asn Ser
                            40
Ala Gln Lys Thr Glu Lys Thr Glu Gln Lys Ala Pro Glu Arg Lys Val
                        55
Leu Phe Trp Tyr Asp Pro Met Lys Pro Asp Thr Lys Phe Asp Lys Pro
                                        75
                    70
Gly Lys Ser Pro Phe Met Asp Met Asp Leu Val Pro Lys Tyr Ala Asp
                                    90
                85
Asp Ser Gly Asp Lys Ser Ser Gly Glu Ile Arg Ile Asp Pro Thr Gln
                                105
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Val Gln Asn Leu Gly Leu Lys Thr Gln Lys Val Thr Arg Gly Met Leu
                           120
       115
Asn Tyr Ser Gln Thr Ile Pro Ala Asn Val Ser Tyr Asn Glu Tyr Gln
                       135
                                            140
Phe Val Ile Val Gln Ala Arg Ser Asp Gly Phe Val Glu Lys Val Tyr
                   150
                                       155
Pro Met Thr Ile Gly Asp His Val Lys Lys Gly Thr Pro Leu Ile Asp
               165
                                   170
Ile Thr Ile Pro Asp Trp Val Glu Ala Gln Ser Glu Phe Leu Leu
           180
                               185
Ser Ser Thr Gly Gly Thr Ser Thr Gln Ile Lys Gly Val Leu Glu Arg
                           200
                                                205
Leu Arg Leu Ala Gly Met Pro Glu Glu Asp Ile Gln Arg Leu Arg Ser
                       215
                                            220
Thr Arg Ser Ile Gln Thr Arg Phe Thr Ile Lys Ala Pro Ile Asp Gly
                   230
                                        235
Val Ile Thr Ala Phe Asp Leu Arg Thr Gly Met Asn Ile Ser Lys Asp
                                    250
               245
Lys Val Val Ala Gln Ile Gln Gly Met Asp Pro Val Trp Ile Ser Ala
            260
                                265
Ala Val Pro Glu Ser Ile Ala Tyr Leu Leu Lys Asp Thr Ser Gln Phe
                            280
                                                285
Glu Ile Ser Val Pro Ala Tyr Pro Asp Lys Thr Phe His Val Glu Lys
                       295
                                            300
Trp Asn Ile Leu Pro Ser Val Asp Gln Thr Thr Arg Thr Leu Gln Val
                    310
                                        315
Arg Leu Gln Val Ser Asn Lys Asp Glu Phe Leu Lys Pro Gly Met Asn
                325
                                    330
Ala Tyr Leu Lys Leu Asn Thr Arg Ser Gln Glu Met Leu Leu Ile Pro
                 •
                                345
            340
Ser Gln Ala Val Ile Asp Thr Gly Lys Glu Gln Arg Val Ile Thr Val
                            360
                                                365
        355
Asp Asp Glu Gly Lys Phe Val Pro Lys Gln Ile His Val Leu His Glu
                       375
    370
                                            380
Ser Gln Gln Gln Ser Gly Ile Gly Ser Gly Leu Asn Glu Gly Asp Thr
                   390
                                        395
Val Val Val Ser Gly Leu Phe Leu Ile Asp Ser Glu Ala Asn Ile Thr
                                    410
                405
Gly Ala Leu Glu Arg Met Arg His Pro Glu Lys Thr Glu Ser Ser Met
                                425
            420
Pro Ala Met Ser Asp Gln Pro Val Asn Met His Ser Gly His
        435
                            440
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<210> 6522

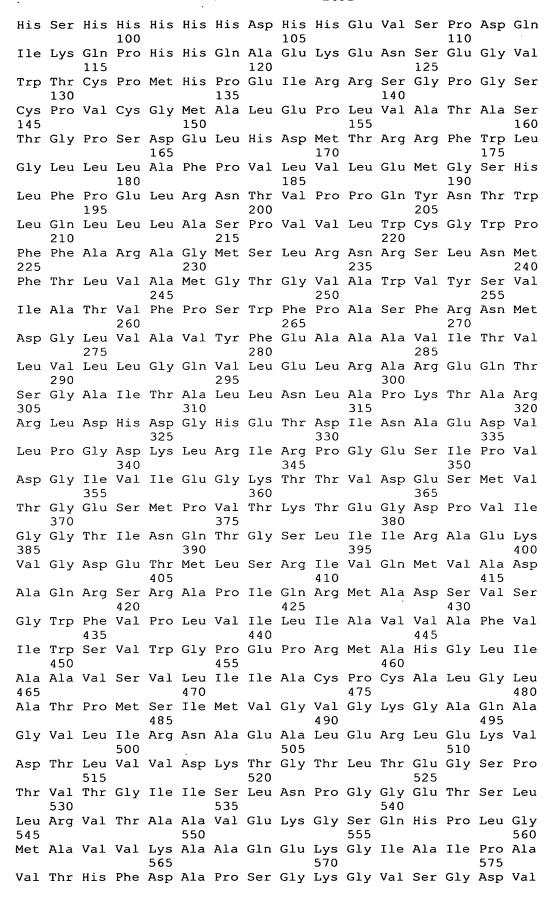
<211> 832

<212> PRT

<213> Enterobacter cloacae

<400> 6522

His Thr Leu Lys Thr Glu Asp Ala Ser Val Cys Ile Arg Arg Val Thr 10 Val Lys Asn Asp Asn Ala Val Gln His Asn Asn Gln Thr Ala Ser Glu 25 Gln Thr Leu Ser Pro Asp Glu Gly His Val Leu His Lys Val Arg Asp 40 45 Pro Val Cys Gly Met Ala Ile Leu Pro Asp Arg Ala His Ser Ser Ile 55 60 Arg Tyr Gln Asp His Gln Leu Tyr Phe Cys Ser Ala Ser Cys Glu Ser 70 75 Lys Phe Lys Ala His Pro Asp Arg Asn Leu Thr Glu Asp Ala Ser Glu 90 85



580 585 Glu Gly Gln Arg Val Val Ile Gly Asn Glu Leu Ala Met Gln Glu Asn 600 605 Ser Ile Val Ile Asp Asn Gln Lys Ala Val Ala Asp Thr Leu Arg Met 615 620 Glu Gly Ala Thr Val Ile Tyr Val Ala Thr Asp Gly Asp Leu Ala Gly 630 635 Leu Ile Ala Ile Ser Asp Pro Val Lys Thr Thr Pro Asp Ala Leu 650 645 Lys Ala Leu Arg Gln Ala Gly Ile Arg Ile Val Met Leu Thr Gly Asp 665 670 Asn Gln Leu Thr Ala Glu Ala Val Ala Arg Lys Leu Gly Ile Asp Glu 680 685 Val Glu Ala Gly Ile Leu Pro Asp Gly Lys Lys Ala Val Ile Thr Arg 695 700 Leu Lys Glu Ser Gly His Val Val Ala Met Ala Gly Asp Gly Val Asn 715 710 Asp Ala Pro Ala Leu Ala Ala Ala Asp Val Gly Ile Ala Met Gly Thr 730 725 Gly Thr Asp Val Ala Ile Glu Ser Ala Gly Val Thr Leu Leu Lys Gly 745 Asp Leu Met Ile Leu Asn Arg Ala Arg His Leu Ser Glu Ile Thr Met 760 Lys Asn Ile Arg Gln Asn Leu Phe Phe Ala Phe Ile Tyr Asn Ala Leu 775 780 Gly Val Pro Val Ala Ala Gly Leu Leu Tyr Pro Val Tyr Gly Ile Leu 795 790 Leu Ser Pro Val Ile Ala Ala Ala Ala Met Ala Leu Ser Ser Val Ser 810 805 Val Ile Val Asn Ala Leu Arg Leu Lys Ser Val Arg Leu Gly Lys 820 825 <210> 6523 <211> 191 <212> PRT <213> Enterobacter cloacae

<400> 6523

Gly Ser Val Phe Gly Ser Gly Pro Phe His Pro Val Val Lys Arg Arg 10 Gly Ser Gln Leu Lys Ala Ala Asp Ala Asn Ile Gly Ala Pro Arg Ala 20 Ala Phe Phe Pro Ser Ile Thr Leu Thr Ser Gly Leu Ser Ala Ser Ser Thr Glu Leu Ser Ser Leu Phe Thr Ser Gly Ser Gly Met Trp Asn Phe 60 Ile Pro Lys Ile Glu Ile Pro Ile Phe Asn Ala Gly Arg Asn Lys Ala Asn Leu Lys Leu Ala Glu Ile Arg Gln Gln Ser Val Val Asn Tyr Glu Gln Lys Ile Gln Ser Ala Phe Lys Asp Val Ser Asp Thr Leu Ala 100 105 Leu Arg Asp Ser Leu Ser Gln Gln Leu Glu Ser Gln Gln Arg Tyr Leu 120 125 Asp Ser Leu Gln Ile Thr Leu Gln Arg Ala Arg Gly Leu Tyr Ala Ser 135 140 Gly Ala Val Ser Tyr Ile Glu Val Leu Asp Ala Glu Arg Ser Leu Phe 150 155 Ala Thr Gln Gln Thr Ile Leu Asp Leu Thr Tyr Ser Arg Gln Val Asn

Glu Ile Asn Leu Phe Thr Ala Leu Gly Gly Gly Trp Val Glu

170

165

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2694
                                                    190
            180
                                185
<210> 6524
<211> 127
<212> PRT
<213> Enterobacter cloacae
<400> 6524
Ile Tyr Leu Ile Asn Gln Glu Ile Lys Met Arg Asn Ser Leu Lys Ala
                                    10
Val Leu Phe Gly Ala Phe Ser Val Met Phe Ser Ala Gly Leu His Ala
                                25
Glu Thr His Gln His Gly Asp Met Asn Thr Ala Ser Asp Ala Ser Val
                            40
                                                 45
Gln Gln Val Ile Lys Gly Thr Gly Val Val Lys Asp Ile Asp Met Asn
                        55
Thr Lys Lys Ile Thr Ile Ser His Glu Ala Ile Pro Ala Val Gly Trp
                    70
                                         75
Pro Ala Met Thr Met Arg Phe Thr Phe Val Asn Ala Asp Asp Ala Ile
                                    90
                85
Asn Ala Leu Lys Thr Gly Asn His Val Asp Phe Ser Phe Ile Gln Gln
                                105
            100
Gly Asn Ile Ser Leu Leu Lys Ser Ile Asn Val Thr Gln Ser
                            120
       115
<210> 6525
<211> 1059
<212> PRT
<213> Enterobacter cloacae
<400> 6525
Ile Cys Ile Gln Gly Thr Glu Glu Thr Thr Met Ile Glu Trp Ile Ile
                                    10
Arg Arg Ser Val Ala Asn Arg Phe Leu Val Met Met Gly Ala Leu Phe
                                25
            20
Leu Ser Ile Trp Gly Thr Trp Thr Ile Ile Asn Thr Pro Val Asp Ala
                            40
Leu Pro Asp Leu Ser Asp Val Gln Val Ile Ile Lys Thr Ser Tyr Pro
Gly Gln Ala Pro Gln Ile Val Glu Asn Gln Val Thr Tyr Pro Leu Thr
                    70
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Thr Thr Met Leu Ser Val Pro Gly Ala Lys Thr Val Arg Gly Phe Ser

Gln Phe Gly Asp Ser Tyr Val Tyr Val Ile Phe Glu Asp Gly Thr Asp 105

Leu Tyr Trp Ala Arg Ser Arg Val Leu Glu Tyr Leu Asn Gln Val Gln

Gly Val Gly Trp Ile Phe Glu Tyr Ala Leu Val Asp Arg Ser Gly Lys

His Asp Leu Ser Glu Leu Arg Ser Leu Gln Asp Trp Phe Leu Lys Phe

Glu Leu Lys Thr Ile Pro Asn Val Ala Glu Val Ala Ser Val Gly Gly 185

Val Val Lys Gln Tyr Gln Ile Gln Val Asn Pro Val Lys Leu Ser Gln

Gln Glu Ala Gly Gly Ser Ser Val Glu Met Ala Glu Ala Glu Tyr Met

200 Tyr Gly Ile Ser Leu Pro Glu Val Lys Gln Ala Leu Glu Ser Ser Asn

120 Gly Lys Leu Pro Ala Gly Val Ser Ser Glu Ile Gly Pro Asp Ala Thr

135

215

150

230

165

180

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115

130

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ľU

Val Arg Ala Ser Gly Tyr Leu Gln Ser Ile Asp Asp Phe Asn Asn Ile 245 250 Val Leu Lys Thr Gly Glu Asn Gly Val Pro Val Tyr Leu Arg Asp Val 260 265 Ala Arg Val Gln Thr Gly Pro Glu Met Arg Arg Gly Ile Ala Glu Leu 275 280 285 Asn Gly Gln Gly Glu Val Ala Gly Gly Val Val Ile Leu Arg Ser Gly 295 300 Lys Asn Ala Arg Asp Val Ile Thr Ala Val Arg Asp Lys Leu Glu Thr 310 315 Leu Lys Ala Ser Leu Pro Glu Gly Val Glu Ile Val Thr Thr Tyr Asp 325 330 Arg Ser Gln Leu Ile Asp Arg Ala Ile Asp Asn Leu Ser Ser Lys Leu 345 Leu Glu Glu Phe Ile Val Val Ala Ile Val Cys Ala Leu Phe Leu Trp 360 His Val Arg Ser Ala Leu Val Ala Ile Ile Ser Leu Pro Leu Gly Leu 375 Cys Ile Ala Phe Ile Val Met His Phe Gln Gly Leu Asn Ala Asn Ile 390 395 Met Ser Leu Gly Gly Ile Ala Ile Ala Val Gly Ala Met Val Asp Ala 405 410 Ala Ile Val Met Ile Glu Asn Ala His Lys Arg Leu Glu Glu Trp Asp 425 420 430 His Gln His Pro Gly Glu Gln Ile Asp Asn Ala Thr Arg Trp Lys Val 440 445 Ile Thr Asp Ala Ser Val Glu Val Gly Pro Ala Leu Phe Ile Ser Leu 455 460 Leu Ile Ile Thr Leu Ser Phe Ile Pro Ile Phe Thr Leu Glu Gly Gln 470 475 Glu Gly Arg Leu Phe Gly Pro Leu Ala Phe Thr Lys Thr Tyr Ser Met 490 485 Ala Gly Ala Ala Ala Leu Ala Ile Ile Val Ile Pro Ile Leu Met Gly 505 500 Phe Trp Ile Arg Gly Lys Ile Pro Ala Glu Thr Ser Asn Pro Leu Asn 515 520 525 Arg Val Leu Ile Lys Ala Tyr His Pro Leu Leu Leu Arg Val Leu His 535 540 Trp Pro Lys Thr Thr Leu Leu Val Ala Ala Leu Ser Ile Phe Thr Val 550 555 Ile Trp Pro Leu Ser Gln Val Gly Glu Phe Leu Pro Lys Ile Asn 565 570 Glu Gly Asp Leu Leu Tyr Met Pro Ser Thr Leu Pro Gly Val Ser Pro 585 Ala Glu Ala Ala Ala Leu Leu Gln Thr Thr Asp Lys Leu Ile Lys Ser 600 Val Pro Glu Val Ala Ser Val Phe Gly Lys Thr Gly Lys Ala Glu Thr 615 620 Ala Thr Asp Ser Ala Pro Leu Glu Met Val Glu Thr Thr Ile Gln Leu 630 635 Lys Pro Glu Asp Gln Trp Arg Pro Gly Met Thr Ile Asp Lys Ile Ile 645 650 Glu Glu Leu Asp Arg Thr Val Arg Leu Pro Gly Leu Ala Asn Leu Trp 665 Val Pro Pro Ile Arg Asn Arg Ile Asp Met Leu Ser Thr Gly Ile Lys 680 685 Ser Pro Ile Gly Ile Lys Val Ser Gly Thr Val Leu Ser Asp Ile Asp 695 700 Ala Thr Ala Gln Ser Ile Glu Ala Val Ala Lys Thr Val Pro Gly Val 710 715 Val Ser Ala Leu Ala Glu Arg Leu Glu Gly Gly Arg Tyr Ile Asp Val

725 730 Asp Ile Asn Arg Glu Lys Ala Ser Arg Tyr Gly Met Thr Val Gly Asp 740 745 Val Gln Leu Phe Ile Ser Ser Ala Ile Gly Gly Ala Thr Val Gly Glu 760 765 Thr Val Glu Gly Val Ala Arg Tyr Pro Ile Asn Ile Arg Tyr Pro Gln 775 780 Asp Tyr Arg Asn Ser Pro Gln Ala Leu Lys Gln Met Pro Ile Leu Thr 790 795 Pro Met Lys Gln Gln Ile Thr Leu Gly Asp Val Ala Asp Ile Lys Val 810 Val Ser Gly Pro Thr Met Leu Lys Thr Glu Asn Ala Arg Pro Ala Ser 825 820 Trp Ile Tyr Ile Asp Ala Arg Gly Arg Asp Met Val Ser Val Val Asn 835 840 Asp Ile Lys Thr Ala Ile Ser Gln Lys Val Lys Leu Arg Pro Gly Thr 850 855 860 Ser Val Ser Phe Ser Gly Gln Phe Glu Leu Glu His Ala Asn Lys 870 875 Lys Leu Lys Leu Met Val Pro Met Thr Val Met Ile Ile Phe Ile Leu 885 890 Leu Tyr Leu Ala Phe Arg Arg Val Asp Glu Ala Leu Leu Ile Leu Met 900 905 Ser Leu Pro Phe Ala Leu Val Gly Gly Ile Trp Phe Leu Tyr Trp Gln 920 Gly Phe His Met Ser Val Ala Thr Gly Thr Gly Phe Ile Ala Leu Ala 935 940 Gly Val Ala Ala Glu Phe Gly Val Val Met Leu Met Tyr Leu Arg His 950 Ala Ile Glu Ala His Pro Glu Leu Ser Arg Lys Glu Thr Phe Thr Pro 970 Glu Gly Leu Asp Glu Ala Leu Tyr His Gly Ala Val Leu Arg Val Arg 990 Pro Lys Ala Met Thr Val Ala Val Ile Ile Ala Gly Leu Leu Pro Ile 1000 1005 Leu Trp Gly Thr Gly Ala Gly Ser Glu Val Met Ser Arg Ile Ala Ala 1015 1020 Pro Met Ile Gly Gly Met Ile Thr Ala Pro Leu Leu Ser Leu Phe Ile 1030 1035 Ile Pro Ala Ala Tyr Lys Leu Ile Trp Leu Arg Arg His Lys Lys Ser 1050

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Val Ser

<211> 134

<212> PRT

<213> Enterobacter cloacae

<400> 6526

 Leu Pro Pro Leu Arg Gly Leu Ala Thr Arg Gly Glu Asp Asp Asp Gly

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 20
 25
 30

 Asn Ala Thr Gly Ala Thr Leu Asp Lys Leu Leu Lys Asp Asp Leu Pro
 45

 Val Val Val Asp Phe Trp Ala Pro Trp Cys Gly Pro Cys Arg Asn Phe
 55
 60

 Ala Pro Ile Phe Glu Asp Val Ala Glu Glu Arg Ser Gly Lys Met Arg
 65
 70

 Phe Val Lys Val Asn Thr Glu Ala Glu Arg Glu Leu Ser Ala Arg Phe

85 90 Arg Ile Arg Ser Ile Pro Thr Ile Met Ile Phe Lys Asn Gly Glu Val 100 105 110 Ile Asp Met Leu Asn Gly Ala Val Pro Lys Ala Pro Phe Asp Ser Trp 120 Leu Asn Glu Ser Leu 130 <210> 6527 <211> 905 <212> PRT <213> Enterobacter cloacae <400> 6527 Gly Arg Lys Arg Leu Lys Ser Ser Gly Arg Leu His Ser Gln Glu Ala 10 Cys Met Ser Gln Arg Gly Leu Glu Ala Leu Leu Arg Pro Lys Ser Ile 20 25 Ala Val Ile Gly Ala Ser Met Lys Pro Asp Arg Ala Gly Tyr Leu Met Met Arg Asn Leu Leu Ala Gly Gly Phe Asn Gly Pro Val Met Pro Val 55 Thr Pro Ala Tyr Lys Ala Val Gln Gly Val Leu Ala Trp Pro Asp Val 70 Gln Ser Leu Pro Phe Val Pro Asp Leu Ala Val Leu Cys Thr His Ala 85 90 Lys Arg Asn Leu Glu Leu Leu Glu Ser Leu Gly Gln Lys Gly Cys Lys 100 105 110 Thr Cys Ile Ile Leu Ser Ser Pro Pro Glu Gln Gln Pro Glu Leu Leu 120 Ala Cys Ala Ser Arg Tyr Gln Met Arg Ile Leu Gly Pro Asn Ser Leu 135 140 Gly Leu Leu Ala Pro Trp Gln Gly Leu Asn Ala Ser Phe Ser Pro Val 150 155 Pro Ile Arg Lys Gly Lys Leu Ala Phe Ile Ser Gln Ser Ala Ala Val 165 170 Ser Asn Thr Ile Leu Asp Trp Ala Gln Gln Arg Glu Met Gly Phe Ser 185 Tyr Phe Ile Ala Leu Gly Asp Ser Leu Asp Ile Asp Val Asp Glu Leu 200 Leu Asp Phe Leu Ala Arg Asp Ser Lys Thr Ser Ala Ile Leu Leu Tyr 215 Leu Glu His Leu Ser Asp Ala Arg Arg Phe Val Ser Ala Ser Arg Ser 230 235 Ala Ser Arg Asn Lys Pro Ile Leu Val Ile Lys Ser Gly Arg Ser Pro 245 250 Ala Ala Gln Arg Leu Leu His Ser Arg Ser Gly Met Asp Pro Ala Trp 265 Asp Ala Ala Ile Gln Arg Ala Gly Leu Leu Arg Val Gln Asp Thr His 280 Glu Leu Phe Ser Ala Val Glu Thr Leu Ser His Met Arg Pro Leu Arg 295 300 Gly Glu Lys Leu Met Ile Val Ser Asn Gly Ala Ala Pro Ala Ala Leu 310 315 Ala Leu Asp Glu Leu Trp Leu Arg Asn Gly Lys Leu Ala Thr Leu Gly 325 330 Glu Glu Thr Leu Gln Arg Leu Arg Asp Ala Leu Pro Gly Ser Val Val 345 350 Pro Asp Asn Pro Leu Asp Leu Arg Asp Asp Ala Ser Ser Asp Arg Tyr 360

Ile Lys Ala Ile Thr Ile Leu Leu Asp Ser Gln Asp Phe Asp Ala Leu

380 375 370 Met Ile Ile His Ser Pro Ser Ala Val Ala Pro Gly Ser Glu Ser Ala 390 395 Arg Ala Leu Ile Glu Ala Val Arg Asn His Pro Arg Gly Lys Tyr Val 405 410 Thr Leu Leu Thr Asn Trp Cys Gly Glu Phe Ser Ser Gln Glu Ala Arg 420 425 · 430 Arg Leu Phe Ser Glu Ala Gly Leu Pro Thr Tyr Arg Thr Pro Glu Gly 440 Thr Ile Thr Ala Phe Met'His Met Val Glu Tyr Arg Arg Asn Gln Lys 455 460 Gln Leu Arg Glu Thr Pro Ala Leu Pro Gly Asn Leu Thr Ala Asn Ser 470 475 Val Asp Val His Arg Leu Leu Gln Gln Ala Ile Glu Glu Gly Ala Thr 485 490 Ser Leu Asp Thr His Glu Val Gln Pro Ile Leu Gly Ser Tyr Gly Met 505 Gln Thr Leu Pro Thr Trp Ile Ala Gly Asp Ser Ala Glu Ala Val His 520 525 Ile Ala Glu Gln Ile Gly Tyr Pro Val Ala Leu Lys Leu Arg Ser Pro 535 540 Asp Ile Pro His Lys Ser Asp Val Gln Gly Val Met Leu Tyr Leu Arg 555 550 Thr Ala Thr Glu Val Gln Gln Ala Ala Asp Ala Ile Ile Asp Arg Val 570 565 Lys Met Thr Trp Pro Gln Ala Arg Ile His Gly Leu Leu Val Gln Ser 580 585 Met Ala Asn Arg Ala Gly Ala Gln Glu Leu Arg Val Val Glu His 600 Asp Pro Val Phe Gly Pro Leu Ile Met Leu Gly Glu Gly Gly Val Glu 615 620 Trp Arg Pro Glu Glu Gln Ala Val Val Ala Leu Pro Pro Leu Asn Met 630 635 Asn Leu Ala Arg Tyr Leu Ile Ile Gln Ala Ile Lys Ser Lys Lys Ile 650 645 Arg Gly Arg Ser Ala Leu Arg Pro Leu Asp Ile Ala Gly Leu Ser Gln 660 665 670 Phe Leu Val Lys Val Ser Asn Leu Ile Val Asp Cys Ala Glu Ile Gln 680 Arg Leu Asp Ile His Pro Leu Leu Ala Ser Gly Asn Glu Phe Thr Ala 695 700 Leu Asp Val Thr Leu Asp Ile Ala Pro Tyr Ile Gly Asp Pro Glu Ser 710 715 Arg Leu Ala Ile Arg Pro Tyr Pro Leu His Leu Glu Glu Trp Val Glu 725 730 Met Lys Asn Gly Glu Arg Ala Leu Phe Arg Pro Ile Leu Pro Glu Asp 745 Glu Pro Leu Leu Arg Ala Phe Ile Ser Gln Val Thr Lys Glu Asp Leu 760 Tyr Tyr Arg Tyr Phe Ser Glu Ile Asn Glu Phe Thr His Asp Asp Leu 775 780 Ala Asn Met Thr Gln Ile Asp Tyr Asp Arg Glu Met Ala Ile Val Ala 795 790 Val Arg Arg Ser Gly Ala Gly Glu Glu Ile Leu Gly Val Thr Arg Ala 805 810 Ile Ser Asp Pro Asp Asn Val Asp Ala Glu Phe Ala Val Leu Val Arg 825 Ser Asp Leu Lys Gly Leu Gly Leu Gly Arg Arg Leu Leu Glu Lys Leu 840 845 Ile Gly Tyr Thr Arg Asp His Gly Leu Ser Arg Leu Asn Gly Ile Thr 860 855

2699 Met Pro Asn Asn Arg Gly Met Val Thr Leu Ala Arg Lys Leu Gly Phe 870 875 Asp Val Asp Ile Gln Leu Asp Glu Gly Ile Val Ser Leu Ser Leu Ser 890 885 Leu Thr Ser Thr Asp Lys Gln Glu 905 900 <210> 6528 <211> 261 <212> PRT <213> Enterobacter cloacae <400> 6528 Thr Asn Pro Cys Asn Ile Arg Gly Ala Tyr Leu Val Pro Arg Ser Leu 10 Leu Cys Glu Asn Gly Val Phe Pro Ala Phe Ser Pro Met Thr Asp Asn 25 Ala Val Leu Gln Leu Arg Ala Glu Arg Leu Ala Arg Ala Thr Arg Pro 40 Phe Leu Ala Arg Gly Asn Arg Ile Arg Arg Cys Gln Arg Cys Leu Leu 55 Pro Leu Lys Val Cys Leu Cys Glu Thr Leu Ala Pro Ser Glu Ala Lys 70 7.5 Ser Arg Phe Cys Leu Val Met Phe Asp Thr Glu Pro Met Lys Pro Ser 90 85 Asn Thr Gly Arg Leu Ile Ala Asp Ile Leu Pro Asn Thr Ala Ala Phe 105 110 100 Gln Trp Ser Arg Thr Glu Pro Pro Gln Ala Leu Leu Asp Leu Val Ala 125 115 120 Ser Pro Asp Tyr Gln Pro Met Val Val Phe Pro Ala Ser Tyr Ala Gly 135 140 Glu Gln Arg Gln Val Leu Thr Ala Pro Pro Ser Gly Lys Pro Pro Leu 150 155 Phe Ile Met Leu Asp Gly Thr Trp Thr Glu Ala Arg Lys Met Phe Arg 165 170 Lys Ser Pro Tyr Leu Asp Ala Leu Pro Val Ile Ser Val Asp Leu Ser 180 185 190 Arg Val Ser Ala Tyr Arg Leu Arg Glu Ala His Ala Asp Gly Gln Tyr 200 205 Cys Thr Ala Glu Val Ala Ile Ala Leu Leu Asp Leu Ala Gly Asp Thr 215 220 Gln Ala Ala Gly Ala Leu Gly Ser His Phe Ser Cys Phe Arg Glu Arg 230 Tyr Leu Ala Gly Lys Thr Val His Lys Gly Ser Val Thr Ala Thr Glu 250 Ala Glu Ser Val 260 <210> 6529 <211> 459 <212> PRT <213> Enterobacter cloacae <400> 6529 Thr Glu Lys Lys Arg Thr Val Met Leu Ser Lys Phe Lys Arg Asn Lys

60 Leu Glu Gln Asp Glu Gly Gly Arg Ala Ile Leu Asn Ala Leu Tyr Glu 70 75 Ala Lys Arg Gln Arg Pro Glu Leu Asp Val Arg Val Leu Val Asp Trp 90 His Arg Ala Gln Arg Gly Arg Ile Gly Ala Ala Ala Ser Asn Thr Asn 105 Ala Asp Trp Tyr Cys Arg Thr Ala Gln Glu Asn Pro Gly Ile Asp Ile . 125 120 115 Pro Val Tyr Gly Val Pro Val Asn Thr Arg Glu Ala Leu Gly Val Leu 135 140 His Phe Lys Gly Phe Ile Ile Asp Asp Ser Val Leu Tyr Ser Gly Ala 150 155 Ser Leu Asn Asp Val Tyr Leu His Gln Leu Asp Lys Tyr Arg Tyr Asp 175 165 170 Arg Tyr His Leu Ile Arg Asn Pro Gln Met Ala Asp Ile Met Phe Asn 185 Trp Val Asp Lys Asn Leu Val His Gly Arg Gly Val His Arg Leu Asp 200 195 Asp Pro His Arg Pro Lys Ser Pro Glu Ile Lys Asn Asp Val Arg Ser 215 Phe Arg Gln Glu Leu Arg Asp Ala Val Tyr Arg Phe Gln Gly Asp Ala 235 230 Ser Asn Glu Glu Leu Ser Val Thr Pro Leu Val Gly Leu Gly Lys Ser 245 250 Ser Leu Leu Asn Lys Thr Ile Phe His Leu Met Pro Cys Ala Glu His 265 Lys Leu Thr Ile Cys Thr Pro Tyr Phe Asn Leu Pro Ala Val Leu Val 275 280 285 Arg Asn Ile Ile Gln Leu Leu Arg Asp Gly Lys Lys Val Glu Ile Ile 295 300 Val Gly Asp Lys Thr Ala Asn Asp Phe Phe Ile Pro Glu Asp Gln Pro 315 310 Phe Lys Ile Ile Gly Ala Leu Pro Tyr Leu Tyr Glu Ile Asn Leu Arg 325 330 Arg Phe Leu Ser Arg Leu Gln Tyr Tyr Val Asn Thr Asp Gln Leu Val 345 Val Arg Leu Trp Lys Asp Glu Asp Asn Ser Tyr His Leu Lys Gly Ile 360 365 Trp Val Asp Asp Glu Trp Met Leu Leu Thr Gly Asn Asn Leu Asn Pro 375 380 Arg Ala Trp Arg Leu Asp Leu Glu Asn Ala Ile Leu Ile His Asp Pro 390 395 Gln His Ala Leu Ala Ala Lys Arg Asp Arg Glu Leu Glu Leu Ile Arg 405 410 Thr His Thr Thr Val Val Arg His Tyr Arg Asp Leu Gln Ser Ile Ala 425 430 Asp Tyr Pro Val Lys Val Arg Lys Leu Ile Arg Arg Leu Arg Arg Ile 440 Arg Ile Asp Arg Leu Ile Ser Arg Ile Leu 455 <210> 6530 <211> 141 <212> PRT <213> Enterobacter cloacae <400> 6530 Phe Ala Val Tyr Val Gly Ser Val Ser Thr Ala Ser Ser Ala Ala Phe

10

Cys Asn Thr Arg Ala Leu Ser Ser Thr Gly Leu Phe Leu Trp Ser Leu

20 25 Leu Met Arg Thr Pro Phe Leu Ile Ile Pro Leu Phe Leu Thr Gly Cys 40 Ser His Met Ala Asn Asp Asn Trp Ser Gly Gln Asp Lys Ala Gln His 55 Phe Leu Ala Ser Ala Met Leu Ser Ala Ala Gly Asn Glu Tyr Ala Leu 70 75 His Gln Gly Tyr Ser Arg Asp Arg Ser Ala Thr Met Gly Leu Met Phe 85 90 Ser Ile Ser Leu Gly Ala Ser Lys Glu Leu Trp Asp Ser Arg Pro Ser 105 Gly Ser Gly Trp Ser Trp Lys Asp Phe Ala Trp Asp Val Ala Gly Ala 120 Thr Thr Gly Tyr Ala Val Trp Gln Met Ala His Tyr <210> 6531 <211> 459 <212> PRT <213> Enterobacter cloacae <400> 6531

Arg Phe Val Leu Asn Pro Val Leu Leu Phe Val Gly Asn Gly Pro Gln Cys Glu Thr Gly Asp Phe Lys Met Thr Glu Thr Val Ala Ser Ala Asp 20 25 Thr Asp Asn Thr Ser Leu Ala Gly Lys Asp Thr Arg Arg Arg Val Trp 40 Ala Ile Val Gly Ala Ser Ser Gly Asn Leu Val Glu Trp Phe Asp Phe Tyr Val Tyr Ser Phe Cys Ser Leu Tyr Phe Ala His Ile Phe Phe Pro 70 Ser Gly Asn Thr Thr Gln Leu Leu Gln Thr Ala Gly Val Phe Ala 90 Ala Gly Phe Leu Met Arg Pro Ile Gly Gly Trp Leu Phe Gly Arg Ile 105 Ala Asp Arg Lys Gly Arg Lys Thr Ser Met Leu Ile Ser Val Cys Met 120 Met Cys Val Gly Ser Leu Val Ile Ala Cys Leu Pro Gly Tyr Asp Thr 135 Ile Gly Thr Trp Ala Pro Ala Leu Leu Leu Ala Arg Leu Phe Gln 150 Gly Leu Ser Val Gly Gly Glu Tyr Gly Thr Ser Ala Thr Tyr Met Ser 170 165 Glu Val Ala Val Glu Gly Arg Lys Gly Phe Tyr Ala Ser Phe Gln Tyr 185 Val Thr Leu Ile Gly Gly Gln Leu Leu Ala Leu Leu Val Val Ile 200 Leu Gln Gln Ile Leu Ser Asp Glu Asp Leu Arg Ala Trp Gly Trp Arg 215 220 Ile Pro Phe Ala Leu Gly Ala Ala Leu Ala Val Ala Leu Trp Leu 230 235 Arg Arg Gln Leu Asp Glu Thr Ser Gln Gln Glu Val Arg Ala Leu Lys 245 250 Glu Ala Gly Ser Met Lys Gly Leu Trp Arg Asn Arg Lys Ala Phe Leu 260 265 Met Val Leu Gly Phe Thr Ala Ala Gly Ser Leu Ser Phe Tyr Thr Phe 280 Thr Thr Tyr Met Gln Lys Tyr Leu Val Asn Thr Thr Gly Met His Ala 295 300 Asn Val Ala Ser Val Val Met Thr Val Ala Leu Leu Val Phe Met Leu

305	Gln	Pro	Tle	Val	310 Glv	Δla	ī.e.i	Ser	Asn	315 Lvs	Tle	Glv	Ara	Ara	320 Thr
				325					330					335	Leu
			340					345					350		
		355					360		Pro			365			
Ile	Met 370	Val	Ala	Leu	Ile	Ile 375	Ile	Ser	Phe	Tyr	Thr 380	Ala	Ile	Ser	Gly
Ile 385	Leu	Lys	Ala	Glu	Met 390	Phe	Pro	Ala	Gln	Val 395	Arg	Ala	Leu	Gly	Val 400
Gly	Leu	Ser	Tyr	Ala 405	Val	Ala	Asn	Ala	Leu 410	Phe	Gly	Gly	Ser	Ala 415	Glu
Tyr	Val	Ala	Leu 420	Ser	Leu	Lys	Ser	Trp 425	Gly	Ser	Glu	Thr	Thr 430	Phe	Phe
Trp	Tyr	Val 435	Thr	Ile	Met	Gly	Ala 440	Leu	Ala	Phe	Ile	Val 445	Ser	Leu	Met
Leu	His 450		Lys	Gly	Lys	Gly 455		Arg	Leu						
c210		532				.00									
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Gly 1	Gly	Leu	Val	Arg 5	Ser	Cys	Gln	Ser	Arg 10	Gly	Glu	Asp	Leu	Glu 15	Leu
His	Leu	Glu	Gln 20	Leu	Phe	Leu	Glu	His 25	Gly	Leu	Thr	Gln	Phe 30	Ala	Thr
Gln	Ser	Val 35	Thr	Glu	Gly	Asn	Lys 40	Lys	Pro	Asp	Phe	Leu 45	Phe	Pro	Ser
Ser	Asp 50	Ala	Tyr	His	Asp	Lys 55	Ala	Phe	Pro	Asp	Glu 60	Lys	Leu	His	Met
Leu 65	Ala	Val	Lys	Thr	Thr 70	Cys	Lys	Asp	Arg	Trp 75	Arg	Gln	Val	Leu	Asn 80
	Ala	Asp	Arg	Ile 85		Asn	Ile	His	Leu 90		Thr	Leu	Gln	Glu 95	
Val	Ser	Leu	Ala 100		Phe	Lys	Glu	Met 105	Gln	Gln	Glu	Arg	Val 110		Leu
Val			Ser				_	Lys	Tyr				Val	Arg	Pro
Glu	Leu 130	Met	Thr	Leu	Gly	His 135	Phe	Ile	Ala	Arg	Leu 140	Ile	Gly	Ile	Tyr
Ala 145															
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Leu	Thr	Ser	Tyr 20	Thr	Gln	Leu	Pro	Glu 25	Ser	Pro	Met	Thr	Trp 30	Lys	Asn
Thr	Ala	Glu 35	Gln	Asn	Ala	Ile	Ile 40	Glu	Trp	Lys	Gly	Thr 45	His	Leu	Val
Val	Asn 50	Ala	Phe	Ala	Gly	Thr 55	Gly	Lys	Thr	Thr	Thr 60	Leu	Val	Ser	Tyr

Ala Glu Ala Asn Pro Glu Ser Arg Met Leu Tyr Leu Ala Tyr Asn Arg 70 75 Ala Val Arg Asp Glu Ala Glu Arg Arg Phe Pro Tyr Asn Val Glu Cys 90 85 Lys Thr Ser His Gln Leu Ala Trp Ala Arg Phe Gly Lys His Phe Arg 105 Asp Arg Leu Thr Ala Ser Leu Arg Ile Thr Asp Val Ala Arg Lys Leu 120 125 Asn Thr Arg His Trp Pro Leu Ala Arg Leu Ala Leu Ser Gly Leu Asn 135 Met Phe Leu Cys Ser Ala Asp Pro Glu Pro Gly Leu Ile His Leu Pro 150 155 Ser Glu Asp Asp Arg His Gly Leu Asp Ala Gly Lys Ile Leu Gly Ala 165 170 Ile Gln Ile Leu Trp Tyr Glu Met Ser Arg Thr Asp Ser Val Phe Pro 185 Val Thr His Asp Thr Tyr Leu Lys Met Phe Gln Leu Ser Gln Pro Asp 200 Leu Ser Lys Arg Trp Asp Thr Ile Leu Phe Asp Glu Ala Gln Asp Ala 220 215 Asn Pro Val Thr Ser Ala Phe Val Leu Asn Gln Pro Cys Arg Val Ile 230 235 Leu Val Gly Asp Arg Tyr Gln Gln Ile Tyr Arg Phe Arg Gly Ala Asp 250 245 Asn Ala Leu Asn Ala Arg Gln Leu Ala Gln Ala Asp Arg Leu Trp Leu 270 260 265 Thr Ala Ser Phe Arg Phe Gly Pro Glu Val Ala Arg Val Ala Asn Ile 280 Leu Leu Glu Arg Ala Gly Glu Glu Lys Arg Val Ala Gly Asn Gly Gly 300 295 Gln Asp Ala Val Val Ser Asp Leu Pro Ala Gly Ala Glu His Ile Thr 310 315 Val Leu Ser Arg Thr Val Ser Gly Val Ile Gly Ser Ala Leu Thr Ala 325 330 Ser Leu Met Glu Lys Lys Val Phe Trp Val Gly Gly Ile Glu Gly Tyr 345 Lys Thr Glu Glu Leu Glu Asp Leu Tyr Trp Phe Ser Ala Asp Met Pro 360 Glu Lys Met Gln Ser Pro Arg Leu Ser Arg Asp Tyr Arg Asp Phe Asp 375 380 Glu Tyr Cys Ser Ile Ala Lys Ala Thr Gln Asp Val Glu Met Asn Gln 395 390 Ala Ile Arg Leu Leu Asp Asp Phe Phe Pro Leu Pro Gln Lys Leu Ala 410 Ile Met Arg Arg Gln Val Val Ser His Glu Lys Glu Ala Gln Val Thr 420 425 Val Ser Thr Ala His Arg Ser Lys Gly Leu Glu Trp Ser Val Val Met 440 445 Leu Ser Glu Asp Phe Thr Asp Ile Thr Asp Pro Leu Leu Ser Gln Glu 455 460 Glu Arg Gln Asp Glu Thr Asn Leu Leu Tyr Val Ala Val Thr Arg Ala 470 475 Arg Lys Thr Leu Val Leu Asn Glu Leu Met Arg Trp Leu Ser Glu Ala 485 · 490 Gly Glu Gly Asp Asp Glu Asn Asp Ala Val Met Pro Asp Asp Thr Gly 505 500 Glu Ile Ser Gly Thr Glu 515

<212> PRT <213> Enterobacter cloacae

<220> <221>UNSURE <222>(85)

<220> <221>UNSURE <222>(88)

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Pro Glu Ala Asp Lys His Glu Ile Asn Gln Thr Ala Ala Glu Asn Ser

390 395 Phe Pro Glu Pro Asp Thr Glu Asp Asn Ile Pro Leu His Ser Val Asn 405 410 Ile Asp Met Gln Lys Thr Val Lys Lys Glu Gln Ala Gly Thr Glu Phe 420 425 Leu Arg Trp Leu Ser Glu Gly Ile Lys Ser Lys Arg Ile Asp Ile Asn 440 Gln Pro Asp Ser Arg Ala His Ala Val Ala Gly Phe Ile Phe Leu Arg 455 Val Pro Asp Ile Phe Tyr Leu Tyr Ile Arg Glu Ser Gly Ser Glu Leu 470 475 Ser Arg Asp Ser Leu Gln Gln Glu Phe Glu Lys Leu His Ile His Arg 485 490 Val Arg Arg Gly Glu Arg Phe Ile Lys Ala Lys Leu Tyr His Ser Pro 500 505 Gly Lys Glu Gly Thr Phe Arg Pro Val Ser Gly Tyr Leu Val Lys Thr 520 Thr His Leu Phe Arg Gly Ala Ser Ser Pro Glu Asp Ser Gly Leu Leu 535 540 530 Ser Phe Leu 545 <210> 6535 <211> 468 <212> PRT <213> Enterobacter cloacae <400> 6535 Leu Gly His Leu Asn Pro Met Met Ile Asn Glu Ala Gln Ala Gln Ala Thr Ala Ala Ser Gly Ser Gly Asp Gly Arg Tyr Pro Ser Gly Leu Cys 25 Ala Gly Ala Glu Ile Ile Pro Ala Ala Asp Glu Gln Thr Lys Ala Glu Pro Leu Thr Met Glu Ala Val Ile Thr Arg Glu Asn Leu Met Leu Ala Tyr Gln Arg Val Val Glu Asn Lys Gly Ala Ala Gly Val Asp Asn Leu Ser Val Ala Glu Leu Lys Pro Trp Leu Lys Arg His Trp Pro Gly Ile 90 Arg Gln Ala Leu Ile Asp Gly Asn Tyr Gln Pro Arg Ala Ile Arg Arg 105 100 Met Asp Ile Pro Lys Pro Asp Gly Gly Val Arg Thr Leu Gly Ile Pro 115 120 125 Thr Val Val Asp Arg Leu Ile Gln Gln Ala Ile Ala Gln Arg Leu Ser 135 140 Ala Ile Val Asp Lys Asp Phe Ser Asp Ser Ser Tyr Gly Phe Arg Pro 150 155 Gly Arg Ser Ala Trp Gln Ala Val Gln Gln Ala Gln Arg Tyr Val Arg 165 170 Ser Gly Lys Arg Trp Val Val Asp Met Asp Leu Glu Lys Phe Phe Asp 185 Arg Val Asp His Arg Leu Leu Leu Ala Arg Leu Ala Arg Lys Ile Arg 200 Asp Arg Arg Leu Leu Arg Leu Ile Arg Arg Tyr Leu Lys Ala Glu Met 215 220 Val Lys Gly Gly Glu Arg Glu Lys Arg Arg Glu Gly Met Pro Gln Gly 230 235 Gly Pro Leu Ser Pro Leu Leu Ser Asn Ile Leu Leu Asp Glu Leu Asp 245 250 Lys Glu Leu Glu Arg Arg Gly His Ser Phe Cys Arg Tyr Ala Asp Asp

265 270 260 Cys Asn Ile Tyr Val Ser Ser Arg Lys Ala Gly Glu Gln Ile Leu Glu 280 285 Ala Val Arg Glu Phe Val Glu Ser Lys Leu Lys Leu Lys Val Asn Glu 300 295 Gln Lys Ser Ala Val Ala Arg Pro Trp Glu Arg Lys Phe Leu Gly Tyr 310 315 Ser Val Thr Trp His Lys Gln Thr Arg Leu Lys Ile Ala Ala Ala Ser 330 Val Gly Arg Leu Lys Asp Lys Ile Arg Ser Leu Thr Thr Gly Asn Arg 345 Ser Arg Ser Val Lys Ala Thr Ile Asp Glu Leu Thr Pro Leu Leu Arg 360 Gly Trp Ile Ser Tyr Phe Arg Leu Thr Glu Val Arg Gly Ile Leu Glu 375 Glu Leu Asp Gly Trp Ile Asn Arg Lys Leu Arg Cys Gln Met Trp Arg 390 395 Gln Trp Lys Arg Pro Arg Ser Arg Ala Arg Met Leu Gln Lys Ala Gly 410 405 Leu Gly Arg Asp Arg Ala Met Leu Ser Ala Tyr Asn Gly His Gly Ala 425 420 Trp Trp Asn Ser Gly Ala Ser His Met Asn Gln Ala Ile Lys Arg Ser 440 Trp Phe Arg Gly Leu Gly Leu Ile Ser Leu Leu Glu His His Arg Gln 460 455 Phe Gln Arg 465 <210> 6536 <211> 68 <212> PRT <213> Enterobacter cloacae <400> 6536 Thr Gln Thr Asn Arg Pro Ala Ala Glu Ile Leu Pro Glu Leu Gly Gln 10 Leu Ser Arg Arg Gln Ile Ala Ala Leu Val Glu Val Ala Pro Tyr Asp 20 Arg Asp Ser Gly Arg Met Lys Gly Arg Arg Val Ile Trp Gly Gly Lys 40 Ser Trp Pro Ser Ile His Phe Val Tyr Gly Cys Ala Phe Cys Cys Thr Val Gln Ser <210> 6537 <211> 532 <212> PRT <213> Enterobacter cloacae <400> 6537 Thr Ala Asp Pro Arg Cys Cys Lys Thr Asp Val Cys Leu Trp Phe Asp 10 Gly Glu Pro Lys Lys Arg Thr Asn Leu Asn His Trp Leu Asn Ile Gln 20 25 Ile Asn Leu Phe Tyr Leu Gly Gln Met Ser Asp Met Val Ser Pro Met 40 45 Arg Pro Thr Gly Gly Ala Met Ser Glu Phe Glu Leu Leu Ala Gln Asp 55 60 Leu Leu Gln Lys Ser Glu Glu Glu Glu Lys Leu Gln Gln Glu Lys Asp 75

Lys Glu Leu Ile Ala Lys Val Leu Glu Ile Tyr Asp Gln Lys Tyr Val 85 90 Ala Glu Leu Leu Arg Lys Val Gly Asn Asn Asp Trp Ser Arg Glu Thr 105 Ile Asn Arg Trp Ile Asn Gly Lys Cys Gly Pro Lys Ser Leu Thr Ser 120 Ala Glu Glu Ile Leu Leu Arg Lys Met Leu Pro Glu Pro Pro Lys His 135 140 His Pro Asp Tyr Ala Phe Arg Phe Ile Asp Leu Phe Ala Gly Ile Gly 150 155 Gly Ile Arg Lys Gly Phe Glu Glu Ile Gly Arg His Cys Val Phe Thr 165 170 Ser Glu Trp Asn Lys Glu Ala Val Arg Thr Tyr Lys Ala Asn Trp Phe 180 185 Asn Asp Glu Leu Glu His Lys Phe Asn Leu Asp Ile Arg Glu Val Thr 195 200 Leu Ser Asp Arg Glu Asp Leu Ser Glu Thr Ala Ala Tyr Lys His Ile 215 220 Asp Lys Glu Ile Pro Asp His Asp Val Leu Leu Ala Gly Phe Pro Cys 230 235 . Gln Pro Phe Ser Leu Ala Gly Val Ser Lys Lys Asn Ser Leu Gly Arg 250 245 Ala His Gly Phe Glu Cys Glu Ala Gln Gly Thr Leu Phe Phe Asp Val . 260 265 Ala Arg Ile Ile Lys Ala Lys Lys Pro Ala Ile Phe Val Leu Glu Asn 275 280 Val Lys Asn Leu Lys Ser His Asp Lys Gly Lys Thr Phe Lys Val Ile 290 295 300 Met Glu Thr Leu Asp Glu Leu Gly Tyr Glu Val Ala Asp Ala Gly Val 310 315 Ser Gly Ser'Asp Asp Pro Lys Ile Ile Asp Gly Lys Asn Phe Leu Pro 325 330 Gln His Arg Glu Arg Ile Val Leu Val Gly Phe Arg Arg Asp Leu Lys 340 345 Ile His Asp Gly Phe Thr Leu Arg Asn Ile His Lys Phe Tyr Pro Gln 355 360 Asn Arg Pro Thr Phe Gly Glu Leu Leu Asp Pro Ala Val Asp Ser Lys 375 Tyr Ile Leu Thr Pro Lys Leu Trp Glu Tyr Leu Tyr Asn Tyr Ala Lys 390 395 Lys His Ala Ala Lys Gly Asn Gly Phe Gly Phe Gly Leu Val Asp Pro 410 Thr Asn Val Asn Ser Val Ala Arg Thr Leu Ser Ala Arg Tyr His Lys 425 Asp Gly Ser Glu Ile Leu Ile Asp Arg Gly Trp Asp Lys Ala Lys Gly 440 Glu Leu Asp Phe Arg Asp Glu Glu Asn Gln Ser Arg Arg Pro Arg Arg 455 460 Leu Thr Pro His Glu Cys Ala Arg Leu Met Gly Phe Glu Lys Val Gly 470 475 Gly Lys Pro Phe Arg Ile Pro Val Ser Asp Thr Gln Ser Tyr Arg Gln 490 485 Phe Gly Asn Ser Val Val Val Pro Val Phe Glu Ala Val Ala Arg Leu 505 Leu Glu Pro Tyr Ile Gly Lys Ala Val Ala Val Arg Thr Asn Lys Ala 515 520 Lys Thr Lys 530

<210> 6538 <211> 102

<212> PRT <213> Enterobacter cloacae <400> 6538

Lys Ala Val Gly Leu Ser Gly Val Gly Arg Ala Gly Leu Arg Ser Ile 10 Leu Phe Met Ala Val Leu Ser Val Val Arg Phe Asn Pro Lys Met Lys 25 His Tyr Tyr Gln Gly Leu Leu Glu Arg Gly Lys Val Lys Lys Val Ala 35 40 Leu Thr Ala Cys Ile Arg Lys Phe Ile Thr Ile Leu Asn Ala Met Val 55 Arg Asp Trp Lys Met Trp Ser Ala Glu Leu Gln Thr Pro Gly Val Ala 70 75 Lys Gln Met Phe Val Tyr Gly Ser Met Gly Ser Gln Lys Ser Glu Gln 85 90 Ile Ser Thr Thr Gly

100

<210> 6539 <211> 461 <212> PRT

<213> Enterobacter cloacae

<400> 6539 Ala Thr Ile Asp Thr His Met Lys Ala Lys Ala Ile Leu Leu Ala Ser 10 Val Leu Leu Val Gly Cys Gln Ser Gln Asn Gly Ser Asn Val Gln Gln His Ala Gln Ser Leu Ser Ala Ala Gly Gln Gly Glu Ala Gly Lys Phe Thr Ser Gln Ala Arg Trp Leu Asp Asp Gly Thr Ser Phe Ala Gln Glu Gln Asp Leu Trp Ala Ser Ile Gly Asp Glu Leu Lys Met Gly Ile Pro 70 Glu Asn Ser Arg Ile Arg Glu Gln Lys Gln Lys Tyr Leu Arg Asn Lys 90 Ser Tyr Leu His Asp Val Thr Leu Arg Ala Glu Pro Tyr Met Tyr Trp 105 Ile Ala Gly Gln Val Lys Lys Arg Asn Met Pro Met Glu Leu Val Leu 120 Leu Pro Ile Val Glu Ser Ala Phe Asp Pro His Ala Thr Ser Gly Ala 135 140 Asn Ala Ala Gly Ile Trp Gln Ile Ile Pro Ser Thr Gly Arg Asn Tyr 150 155 Gly Leu Lys Gln Thr Arg Asn Tyr Asp Ala Arg Arg Asp Val Val Ala 165 170 Ser Thr Thr Ala Ala Leu Asp Met Met Gln Arg Leu Asn Lys Met Phe 185 190 Asp Gly Asp Trp Leu Leu Thr Val Ala Ala Tyr Asn Ser Gly Glu Gly 200 195 Arg Val Leu Lys Ala Met Lys Ala Asn Lys Ala Arg Gly Lys Ser Thr 215 220 Asp Phe Trp Ser Leu Ser Leu Pro Gln Glu Thr Lys Ile Tyr Val Pro 230 235 Lys Met Leu Ala Leu Ser Asp Ile Leu Lys Asn Ser Lys Arg Tyr Gly 245 250 255 Val Gln Leu Pro Thr Pro Asp Glu Ser Arg Ala Leu Ala Arg Val Arg 260 265 270 Leu Ser Ser Pro Val Asp Ile Gln Gln Val Ala Asp Met Thr Gly Met 280

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Ser Val Ser Lys Leu Lys Thr Phe Asn Ala Gly Val Lys Gly Ser Thr
                        295
                                             300
Leu Gly Ala Ser Gly Pro Arg Tyr Val Met Val Pro Gln Lys His Ala
                    310
                                        315
Glu Gln Leu Arg Glu Ser Leu Ala Ser Gly Glu Ile Ala Ala Val Gln
                325
                                    330
Ser Thr Leu Ile Ala Asp Thr Ser Pro Val Ser Ser Arg Ser Tyr Lys
                                345
Val Arg Ser Gly Asp Thr Leu Ser Gly Ile Ala Ser Arg Leu Gly Val
                            360
Asn Ala Lys Asp Leu Gln Gln Trp Asn Asn Leu Arg Gly Ser Gly Leu
                        375
Lys Val Gly Gln Thr Leu Asn Val Gly Ala Gly Ser Ser Ala Gln Arg
                    390
                                         395
Leu Ala Lys Asn Ser Asp Ser Ile Thr Tyr Arg Val Arg Lys Gly Asp
                                    410
                405
                                                         415
Ser Leu Ser Ser Ile Ala Lys Arg His Gly Val Asn Ile Lys Asp Val
            420
                                 425
                                                     430
Met Arg Trp Asn Asn Asp Thr Asp Asn Leu Gln Pro Gly Asp Gln Leu
                            440
        435
Thr Leu Phe Val Lys Asn Ser Ala Thr Pro Asp Ser
    450
                        455
<210> 6540
<211> 102
<212> PRT
<213> Enterobacter cloacae
<400> 6540
Ser Leu Arg Leu Ala Leu Ala Arg Pro Gly Ile Leu Glu Gly Thr Ser
                                    1.0
Ser Arg Leu Ala Thr Ile Ala Ile Thr Pro Asn Ser Asp Thr Ala Arg
            20
                                 25
Lys Val Ser Arg Gln Pro Lys Cys Cys Pro Ile Asn Val Pro Asn Gly
                            40
Thr Pro Val Thr Ser Ala Thr Val Lys Pro Pro Asn Ile Ile Ala Met
Ala Asp Ala Ala Phe Ser Phe Gly Thr Arg Leu Val Ala Ile Val Glu
                    70
                                         75
Pro Met Glu Lys Lys Thr Pro Cys Ala Arg Pro Val Ser Lys Arg Ala
                85
                                    90
Met Thr Ser Val Val
            100
<210> 6541
<211> 309
<212> PRT
<213> Enterobacter cloacae
<400> 6541
Asn Phe Ala Asp Asp Ala Ile Met Lys Ala Thr Ser Glu Glu Leu Thr
                                    10
Ile Phe Val Ala Val Val Glu Ser Gly Ser Phe Ser Arg Ala Ala Glu
            20
                                25
Gln Leu Gly Gln Ala Asn Ser Ala Ile Ser Arg Ser Val Lys Lys Leu
                            40
                                                 45
Glu Met Lys Leu Gly Val Ser Leu Leu Asn Arg Thr Thr Arg Gln Leu
                        55
                                             60 .
Ser Leu Thr Glu Glu Gly Glu Arg Tyr Phe Arg Arg Val Gln Ser Val
                                        75
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Leu Gln Glu Met Ala Ala Ala Glu Thr Glu Ile Met Glu Ser Arg Ser

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90
Thr Pro Arg Gly Leu Leu Arg Ile Asp Ala Ala Thr Pro Val Val Leu
                               105
His Phe Leu Met Pro Leu Ile Lys Pro Phe Arg Glu Arg Tyr Pro Glu
                            120
                                                125
Met Thr Leu Ser Leu Val Ser Ser Glu Thr Phe Ile Asn Leu Ile Glu
                        135
                                            140
Arg Lys Val Asp Val Ala Ile Arg Ala Gly Thr Leu Thr Asp Ser Ser
                    150
                                        155
Leu Arg Ala Arg Pro Leu Phe Thr Ser Tyr Arg Lys Met Ile Ala Ser
                                    170
                165
Pro Gln Tyr Ile Ala Glu His Gly Lys Pro Glu Thr Val Glu Glu Leu
                                185
Lys Gln His Leu Cys Leu Gly Phe Thr Glu Pro Val Ser Leu Asn Thr
                            200
                                                205
Trp Pro Val Ala Cys His Asp Gly Gln Leu His Glu Ile Thr Cys Gly
                        215
Leu Ser Ser Asn Ser Gly Glu Thr Leu Lys Gln Leu Cys Leu Glu Gly
                    230
                                        235
Asn Gly Ile Ala Cys Leu Ser Asp Tyr Met Ile Asp Lys Glu Ile Ala
                245
                                    250
Ala Gly Gln Leu Val Glu Leu Met Ala Asp Lys Arg Leu Pro Val Glu
                                265
                                                    270
Met Pro Phe Ser Ala Val Tyr Tyr Ser Asp Arg Ala Val Ser Thr Arg
                            280
Ile Arg Ala Phe Ile Asp Phe Leu Ser Glu His Ile Lys Thr Ala Pro
                        295
Gly Gly Ala Val
305
<210> 6542
<211> 64
<212> PRT
<213> Enterobacter cloacae
<400> 6542
Ile Leu Ile Ala Asp Pro Ala Ser Leu Val Val Lys Thr Leu Pro Val
                                    10
Ile Leu Lys Asn Glu Arg Gln Ile Asn Leu Phe Leu Arg Thr Asp Asp
                                25
Val Asp Leu Ile Asn Lys Ile Asn Gln Glu Thr Asn Leu Leu Gln Pro
                           40
Glu Ala Arg Phe Ala Trp Leu Arg Ser Lys Lys Asp Asn Phe Arg
<210> 6543
<211> 273
<212> PRT
<213> Enterobacter cloacae
<400> 6543
Arg Leu Arg Asn His Met Thr Ile Pro Ala Leu Gly Leu Gly Thr Phe
                                    10
Arg Leu Lys Asp Asp Val Val Ile Ala Ser Val Lys Thr Ala Leu Glu
                                25
Leu Gly Tyr Arg Ala Ile Asp Thr Ala Gln Ile Tyr Asp Asn Glu Ala
                            40
Ala Val Gly Gln Ala Ile Glu Glu Ser Gly Val Pro Arg Asp Glu Leu
                        55
                                            60
Phe Val Thr Thr Lys Ile Trp Ile Glu Asn Leu Ser Lys His Lys Leu
                   70
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<210> 6544

<211> 291

<212> PRT

Ile Pro Ser Leu Lys Glu Ser Leu Lys Lys Leu Arg Thr Asp Tyr Val 85 90 Asp Leu Thr Leu Ile His Trp Pro Ser Pro Asp Asp Ala Val Ser Val 100 105 110 Glu Glu Phe Met Gln Ala Leu Leu Glu Ala Lys Glu Gln Gly Leu Thr 115 120 125 Arg Glu Ile Gly Ile Ser Asn Phe Thr Ile Pro Leu Met Glu Arg Ala 135 140 Ile Ala Ala Val Gly Lys Glu Asn Ile Ala Thr Asn Gln Ile Glu Leu 155 150 Ser Pro Tyr Leu Gln Asn Arg Lys Val Val Asp Trp Ala Lys Gln His 165 170 Ser Ile His Ile Thr Ser Tyr Met Thr Leu Ala Tyr Gly Lys Ala Leu 185 Lys Asp Glu Val Ile Ala Arg Ile Ala Glu Lys His Asn Ala Thr Ala 200 Ala Gln Val Ile Leu Ala Trp Ala Met Gly Glu Gly Tyr Ala Val Ile 220 215 Pro Ser Ser Thr Lys Arg Glu Asn Leu Ala Ser Asn Leu Leu Ala Arg 230 235 Asp Leu Gln Leu Asp Asp Glu Asp Lys Asn Ala Ile Ala Ala Leu Glu 245 250 Cys Asn Asp Arg Leu Val Ser Pro Glu Gly Leu Ala Pro Asp Trp Asp 265 260

<213> Enterobacter cloacae <400> 6544 Pro Lys Ile Pro Ile Thr Leu Glu Pro Val Arg Phe Pro Gly Trp Phe 10 Met Leu Gln Arg Ser Phe Pro Lys Val Arg Lys Asn Thr Tyr Ala Met 25 20 Arg Tyr Val Ala Gly Met Pro Ala Glu Arg Ile Leu Pro Pro Gly Ser 40 Phe Ala Ser Leu Gly Gln Ala Leu Pro Ala Gly Thr Pro Leu Ser Ser 55 60 Asp Glu Lys Ile Arg Val Leu Val Trp Asn Ile Phe Lys Gln Gln Arg 70 75 Ala Glu Trp Leu Ser Val Leu Gln Asn Phe Gly Lys Asp Ala His Leu Val Leu Leu Gln Glu Ala Gln Thr Thr Pro Glu Leu Val Arg Phe Ala 105 Thr Thr Asn Tyr Leu Ala Ala Asp Gln Val Pro Ala Phe Val Leu Pro 120 125 115 Gln His Pro Ser Gly Val Met Thr Leu Ser Ala Ala His Pro Val Tyr 135 140 Cys Cys Pro Leu Arg Glu Arg Glu Pro Ile Leu Arg Leu Ala Lys Ser 150 155 Ala Leu Val Thr Val Tyr Pro Leu Pro Asp Thr Arg Leu Leu Met Val 170 165 Val Asn Ile His Ala Val Asn Phe Ser Leu Gly Val Asp Val Tyr Ser 185 . 180 Lys Gln Leu Leu Pro Ile Gly Asp Gln Ile Ala His His Ser Gly Pro 200 205 Ile Ile Met Ala Gly Asp Phe Asn Ala Trp Ser Arg Pro Arg Met Asn

220

215

Ala Leu Tyr Arg Phe Ala Arg Glu Met Ser Leu Arg Glu Val Arg Phe 230 235 Asn Asp Asp Gln Arg Lys Lys Ala Phe Gly Arg Pro Leu Asp Phe Val 245 250 Phe Tyr Arq Gly Leu Ser Val His Asp Ala Ser Val Leu Val Thr Arq 265 Ala Ser Asp His Asn Pro Leu Leu Val Glu Phe Ser Pro Gly Lys Pro 280 Asp Lys 290 <210> 6545 <211> 397 <212> PRT <213> Enterobacter cloacae <400> 6545 Arg Asp Gly Val Phe Met Pro Leu Ala Leu Leu Ala Leu Thr Ile Ser 10 Ala Phe Ala Ile Gly Thr Thr Glu Phe Val Ile Val Gly Leu Val Pro 20 25 Thr Ile Ala Glu Gln Leu Ala Ile Ser Leu Pro Ser Ala Gly Leu Leu 40 Val Ser Ile Tyr Ala Leu Gly Val Ala Val Gly Ala Pro Val Leu Thr 55 Ala Leu Thr Gly Arg Phe Ala Arg Lys Lys Leu Leu Val Ala Leu Met 70 75 Val Leu Phe Thr Ala Gly Asn Ile Leu Ala Trp Gln Ala Pro Asp Tyr . 90 Thr Thr Leu Val Ile Ala Arg Leu Leu Thr Gly Leu Ala His Gly Val 105 100 Phe Phe Ser Ile Gly Ser Thr Ile Ala Thr Ser Leu Val Pro Lys Glu 120 Lys Ala Ala Ser Ala Ile Ala Ile Met Phe Gly Gly Leu Thr Val Ala 135 140 Leu Val Thr Gly Val Pro Leu Gly Thr Phe Ile Gly Gln His Phe Gly 150 155 Trp Arg Glu Thr Phe Leu Ala Val Ser Leu Leu Gly Val Ile Ala Met 165 170 Val Ala Ser Leu Leu Val Pro Ser Ser Ile Pro Gly Arg Ala Ser 185 Ala Ser Leu Ser Asp Gln Val Lys Val Leu Thr His Pro Arg Leu Leu 195 200 Leu Ile Tyr Ala Val Thr Ala Leu Gly Tyr Gly Gly Val Phe Thr Ala 220 215 Phe Thr Phe Leu Ala Pro Met Met Gln Glu Leu Ala Gly Phe Ser Pro 230 235 Gly Ala Val Ser Trp Ile Leu Leu Gly Tyr Gly Ile Ser Val Ala Ile 245 250 Gly Asn Ile Trp Gly Gly Lys Leu Ala Asp Lys His Gly Ala Val Pro 260 265 Ala Leu Lys Phe Ile Phe Ala Ala Leu Val Val Leu Leu Met Ile Phe 280 285 Gln Phe Thr Ala Ser Ile Gln Tyr Ala Ala Leu Val Thr Val Leu Val 295 300 Met Gly Ile Phe Ala Phe Gly Asn Val Pro Gly Leu Gln Val Tyr Val 310 315 Val Gln Lys Ala Glu Arg Tyr Thr Pro Asn Ala Val Asp Val Ala Ser 330 Gly Leu Asn Ile Ala Ala Phe Asn Ile Gly Ile Ala Leu Gly Ser Val

345

2713 Ile Gly Gly Gln Thr Val Glu His Val Gly Leu Thr Gln Thr Pro Trp 355 360 365 Ile Gly Ala Val Ile Val Leu Val Ala Phe Leu Leu Ile Gly Leu Ser 375 Gly Arg Leu Asp Lys Pro Ala Arg Val Ala Leu Gly 390 <210> 6546 <211> 262 <212> PRT <213> Enterobacter cloacae <400> 6546 Lys Asp Ser Asn Met Thr Thr His Ser His His Asp Asn Val Asp 1 . 10 Lys Gln Phe Gly Ser Gln Ala Ser Ala Tyr Leu Ser Ser Ala Val His 20 25 Ala Ser Gly Arg Asp Leu Val Arg Leu Gly Glu Arg Leu Ala Ala Phe 40 45 Pro Asp Ala His Val Leu Asp Leu Gly Cys Gly Ala Gly His Ala Ser 55 Phe Thr Ala Ala Glu Gln Val Ala Gln Val Thr Ala Tyr Asp Leu Ser 75 70 Ser Gln Met Leu Asp Val Val Ala Glu Ala Ala Lys Ala Lys Gly Leu 85 90 Asn Asn Val Thr Thr Arg Gln Gly Tyr Ala Glu Ser Leu Pro Phe Glu 105 100 Asp Ala Ser Phe Glu Val Val Ile Ser Arg Tyr Ser Ala His His Trp 120 His Asp Val Gly Gln Ala Leu Arg Glu Val Lys Arg Val Leu Lys Pro-135 140 Gly Gly Ile Phe Ile Ile Met Asp Val Met Ser Pro Gly His Pro Val 150 155 Arg Asn Ile Trp Leu Gln Thr Val Glu Ala Leu Arg Asp Thr Ser His 165 170 Val Gln Asn Tyr Ser Ser Gly Glu Trp Leu Thr Phe Ile Thr Glu Ala 180 185 190 Gly Leu Ile Ser Arg Ser Leu Ile Thr Asp Arg Leu Pro Leu Glu Phe 200 Ala Ser Trp Ile Ala Arg Met Arg Thr Pro Glu Ala Leu Thr Gln Ala 215 Ile Arg Leu Tyr Gln Glu Ser Ala Ser Ala Asp Val Lys Ala Tyr Phe 230 235 Glu Leu His Asp Asp Gly Ser Phe Thr Ser Asp Thr Ile Met Ala Glu 245 250 Ala Gln Lys Ala Gly 260 <210> 6547 <211> 337 <212> PRT <213> Enterobacter cloacae <400> 6547 Pro Gly Cys Arg Leu Ser Lys Glu Ser Met Met Ser Ser Val Thr Thr 10 Ser Gly Ala Pro Lys Ser Ala Phe Ser Phe Gly Arg Ile Trp Asp Gln 25

Tyr Gly Met Leu Val Val Phe Ala Ala Leu Phe Val Ala Cys Ala Ile 35 40 45 Phe Val Pro Asn Phe Ala Thr Phe Ile Asn Met Lys Gly Leu Gly Leu

55 Ala Ile Ser Met Ser Gly Met Val Ala Cys Gly Met Leu Phe Cys Leu 70 75 Ala Ser Gly Asp Phe Asp Leu Ser Val Ala Ser Val Ile Ala Cys Ala 90 85 Gly Val Thr Thr Ala Val Val Ile Asn Met Thr Glu Ser Leu Trp Ile 105 · 110 Gly Val Leu Ala Gly Leu Leu Cly Val Leu Ser Gly Leu Val Asn 120 125 Gly Phe Val Ile Ala Arg Leu Lys Ile Asn Ala Leu Ile Thr Thr Leu 135 140 Ala Thr Met Gln Ile Val Arg Gly Leu Ala Tyr Ile Ile Ser Asp Gly · 155 150 Lys Ala Val Gly Ile Glu Asp Glu Arg Phe Phe Thr Leu Gly Tyr Ala 165 170 Asn Trp Leu Gly Leu Pro Ala Pro Ile Trp Leu Thr Val Gly Cys Leu 180 185 Ile Leu Phe Gly Phe Leu Leu Asn Arg Thr Thr Phe Gly Arg Asn Thr 205 200 Leu Ala Ile Gly Gly Asn Glu Glu Ala Ala Arg Leu Ala Gly Val Pro 220 215 Val Val Arg Thr Lys Ile Ile Ile Phe Val Leu Ser Gly Leu Val Ser 235 230 Ala Ala Ala Gly Ile Ile Leu Ala Ser Arg Met Thr Ser Gly Gln Pro 250 245 Met Thr Ser Ile Gly Tyr Glu Leu Ile Val Ile Ser Ala Cys Val Leu 270 260 265 Gly Gly Val Ser Leu Lys Gly Gly Ile Gly Lys Ile Ser Tyr Val Val 280 285 Ala Gly Ile Leu Ile Leu Gly Thr Val Glu Asn Ala Met Asn Leu Leu 295 300 Asn Ile Ser Pro Phe Ser Gln Tyr Val Val Arg Gly Leu Ile Leu Leu 310 315 Ala Ala Val Ile Phe Asp Arg Tyr Lys Gln Lys Ala Lys Arg Thr Val 325 330

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<210> 6548
<211> 305
<212> PRT
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<213> Enterobacter cloacae

<220> <221>UNSURE <222>(305)

<400> 6548 Pro Ala Gln Leu Leu Thr Ile Val Asp Pro Leu Thr Gly Pro Pro Val 10 Leu Leu Thr Gly Arg Leu Leu Asn Gly Glu His Arg His Thr Val Tyr 25 20 Thr Tyr Met Ala Val Leu Phe Thr Val Arg Arg Ile Arg Val Ala Asp 40 Leu Leu Thr Ala Pro Pro Val Leu Pro Gly Lys Phe Ala Phe Phe 55 Asp Leu Asp Gly Thr Leu Ala Gly Ile Glu Pro His Pro Asp Asp Val 70 75 Val Val Pro Asp Thr Val Leu Glu Asn Leu Gln Gln Leu Ser Arg Gln 90 Asn Glu Gly Ala Leu Ala Leu Ile Ser Gly Arg Ser Met Ala Glu Leu

100 105 110 Asp Val Leu Ala Ser Pro Tyr His Phe Pro Leu Ala Gly Val His Gly 120 125 Ala Glu Arg Arg Asp Ile His Asp Gln Leu His Ile Val Ser Leu Pro 135 140 Asp Thr Leu Ile Gln Thr Leu His Ala Gln Leu Ser Ser Ala Leu Glu 150 155 Met Leu Pro Gly Thr Glu Leu Glu Ala Lys Gly Met Ala Phe Ala Leu 165 170 His Tyr Arg Gln Ala Pro His His Glu Ala Ala Ile Phe Ser Ile Ala 185 Arg Ser Val Ala Glu Ala His Pro Glu Leu Ala Leu Gln Pro Gly Lys 200 Cys Val Val Glu Ile Lys Pro Ala Gly Ile Asn Lys Gly Ala Ala Ile 215 220 Ala Ala Phe Met Ala Glu Ala Pro Phe Lys Gly Arg Thr Pro Val Phe 230 235 Phe Gly Asp Asp Leu Thr Asp Glu Ala Gly Phe Arg Val Val Asn Gln 245 250 Ala Gln Gly Met Ser Val Lys Val Gly Ser Gly Glu Thr Ile Ala Gly 265 270 Trp Arg Leu Glu Asn Val Ala Ser Val Trp Gln Trp Ile Ser Asp Val 275 280 Ala Asn Gln Gln Leu Phe Thr Thr Asp Cys Arg Pro Ala His Met 295 300 Xaa 305 <210> 6549 <211> 140 <212> PRT <213> Enterobacter cloacae <400> 6549 Lys Ala Cys Gly Gln Thr Thr Ala Gln Arg Leu Lys Thr Ser His Arg 1 10 Val Arg Cys Ser Asp Lys Lys Thr Cys Phe Gly Arg Phe Phe Tyr Val Cys Gly Arg Arg Glu Gly Asp Gly Arg Ala Ser Val Leu Leu Trp 40 Arg Pro Leu Asn Lys Glu Asn Pro Met Ser Gln Asn Leu Ser Ala Asp 55 Gln Glu Leu Val Ser Asp Val Val Ala Cys Gln Leu Val Ile Lys Gln 75 Ile Leu Asp Val Ile Asp Val Ile Ala Pro Val Glu Val Arg Glu Lys 90 Met Ser Thr Gln Leu Lys Asn Ile Asp Phe Thr Asn His Pro Ala Ala 100 105 110 Ala Asp Pro Val Thr Leu Arg Ala Ile Gln Lys Ala Ile Ala Leu Ile 115 120 Glu Leu Arg Phe Thr Pro Gln Gly Glu Ser His 130 135 140 <210> 6550 <211> 203 <212> PRT <213> Enterobacter cloacae <400> 6550 Arg Glu Lys Met Lys Arg Cys Phe Thr Leu Phe His Ser Leu Arg Phe

Met Met Ala Asn Val Ala Val Leu Leu Ala Pro Gly Phe Glu Glu Ala 25 Glu Ala Ile Ile Thr Ile Asp Ile Leu Arg Arg Leu Gln Ile Glu Val 40 Glu Thr Leu Ala Cys Ala Glu Ser Arg Ala Val Val Ser Tyr His Asn Ile Pro Met Val Ala Asp Ser Thr Leu Thr Glu Arg Ile Asn Arg Leu 75 Tyr Asp Ala Val Val Leu Pro Gly Gly Pro Gln Gly Ser Val Asn Leu Ala Ala Asn Gln Glu Val Ile Arg Phe Val Ser Ala His Asp Glu His 100 105 Gly Lys Leu Ile Cys Pro Ile Cys Ser Ala Ala Ala Arg Val Leu Gly 120 125 Gly Asn Gly Leu Leu Lys Gly Arg Arg Tyr Val Cys Ser Gly Asp Leu 135 140 Trp Gln Ser Val Asp Asp Gly Val Tyr Val Asp Ala Pro Val Val Glu 150 155 Asp Asn Asn Leu Ile Ser Gly Lys Gly Leu Gly His Ala Phe Asp Phe 165 170 Ala Leu Thr Leu Ser Ala Arg Leu Leu Gly Val Asp Ser Pro Val Arg 185 Asp His Ala Glu His Ile Tyr Tyr Arg Trp 200

<210> 6551

<211> 518

<212> PRT

<213> Enterobacter cloacae

<400> 6551

Gly Ala Arg Arg. Thr His Tyr Arg Asn His Gly Val Val Met Gln Gln Ser Asp Pro Tyr Leu Ser Phe Arg Gly Ile Gly Lys Thr Phe Pro Gly Val Asn Ala Leu Thr Asp Ile Ser Phe Asp Cys Tyr Ala Gly Gln Val His Ala Leu Met Gly Glu Asn Gly Ala Gly Lys Ser Thr Leu Leu Lys Ile Leu Ser Gly Asn Tyr Thr Pro Thr Thr Gly Thr Leu Ala Ile Arg 75 Gly Glu Glu Val Ala Phe Ala Asp Thr Thr Ala Ala Leu Asn Ala Gly 90 Val Ala Ile Ile Tyr Gln Glu Leu His Leu Ile Pro Glu Met Thr Val 105 Ala Glu Asn Ile Tyr Leu Gly Gln Leu Pro His Lys Ser Gly Val Val 120 Asn Arg Ser Leu Leu Asn Tyr Glu Ala Gly Leu Gln Leu Lys His Leu 135 140 Gly Leu Asp Val Asp Pro Gln Thr Pro Leu Lys Tyr Leu Ser Ile Gly 150 155 Gln Trp Gln Met Val Glu Ile Ala Lys Ala Leu Ala Arg Asn Ala Lys 165 170 Ile Ile Ala Phe Asp Glu Pro Thr Ser Ser Leu Ser Ala Arg Glu Ile 185 Glu Asn Leu Phe Arg Val Ile Arg Glu Leu Arg Lys Glu Gly Arg Ile 200 Ile Leu Tyr Val Ser His Arg Met Glu Glu Ile Phe Ala Leu Ser Asp 220 215 Ala Ile Thr Val Phe Lys Asp Gly Arg Tyr Val Arg Thr Phe Thr Asp 235

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Met Gln Gln Val Asn His Asp Gln Leu Val Gln Ala Met Val Gly Arg
                                    250
                245
Asp Leu Gly Asp Ile Tyr His Trp Lys Pro Arg Glu Tyr Gly Pro Glu
                                265
Arg Leu Arg Leu Asp Asn Val Lys Ala Pro Gly Val Arg Thr Pro Ile
                            280
Ser Leu Ser Val Arg Ser Gly Glu Ile Val Gly Leu Phe Gly Leu Val
                        295
                                             300
Gly Ala Gly Arg Ser Glu Leu Met Lys Gly Leu Phe Gly Gly Thr Arg
                                        315
                    310
Ile Thr Gln Gly Gln Val Phe Val Asp Gly Lys Lys Val Asp Ile Gln
                325
                                    330
Lys Pro Ala Gln Ala Ile Asn Ala Gly Ile Met Leu Cys Pro Glu Asp
            340
                                345
Arg Lys Ala Glu Gly Ile Ile Pro Val His Ser Val Arg Asp Asn Ile
        355
                            360
                                                 365
Asn Ile Ser Ala Arg Arg Lys Phe Ile Arg Ala Gly Cys Leu Ile Asn
                        375
                                             380
Asp Gly Trp Glu Ala Ser Asn Ala Asp His His Ile Arg Ser Leu Asn
                    390
                                        395
Ile Lys Thr Pro Gly Ala Glu Gln Leu Ile Met Asn Leu Ser Gly Gly
                405
                                    410
Asn Gln Gln Lys Ala Ile Leu Gly Arg Trp Leu Ser Glu Asp Met Lys
            420
                                425
Val Ile Leu Leu Asp Glu Pro Thr Arg Gly Ile Asp Val Gly Ala Lys
                            440
His Glu Ile Tyr Asn Val Ile Tyr Glu Leu Ala Lys Arg Gly Val Ala
                        455
Val Leu Phe Ala Ser Ser Asp Leu Pro Glu Val Leu Gly Val Ala Asp
                    470
                                        475
Arg Ile Val Val Met Arg Glu Gly Glu Ile Ala Gly Glu Leu Leu His
                                    490
Glu Gln Ala Asn Glu Gln Gln Ala Leu Ser Leu Ala Met Pro Lys Val
                                505
Ser Gln Ala Val Ala
        515
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<210> 6552 <211> 347 <212> PRT

<213> Enterobacter cloacae

<400> 6552

Val Val Arg His Tyr Ser Leu Gln Ile Arg Met Leu Lys Leu Glu Phe 10 Thr Met His Lys Phe Thr Lys Ala Leu Ala Ala Ile Gly Leu Ala Ala 25 Val Met Ser Gln Ser Ala Ile Ala Glu Asn Leu Lys Leu Gly Phe Leu 40 Val Lys Gln Pro Glu Glu Pro Trp Phe Gln Thr Glu Trp Lys Phe Ala 55 Asp Lys Ala Gly Lys Asp Leu Gly Phe Glu Val Ile Lys Ile Ala Val 70 75 Pro Asp Gly Glu Lys Thr Leu Asn Ala Ile Asp Ser Leu Ala Ala Ser 90 Gly Ala Lys Gly Phe Val Ile Cys Thr Pro Asp Pro Lys Leu Gly Ser 105 Ala Ile Ala Ala Lys Ala Arg Gly Tyr Asp Met Lys Val Ile Ala Val 120 125 Asp Asp Gln Phe Val Asn Ala Lys Gly Lys Pro Met Asp Thr Val Pro 135

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Leu Val Met Met Ala Ala Thr Lys Ile Gly Glu Arg Gln Gly Glu
                   150
                                       155
Leu Tyr Lys Glu Met Gln Lys Arg Gly Trp Asp Val Lys Glu Thr Ala
               165
                                    170
Val Met Ala Ile Thr Ala Asp Glu Leu Asp Thr Ala Arg Arg Arg Thr
                               185
Thr Gly Ser Met Asp Ala Leu Lys Ala Ala Gly Phe Pro Glu Lys Gln
                           200
Ile Tyr Lys Val Pro Thr Lys Ser Asn Asp Ile Pro Gly Ala Phe Asp
                        215
Ala Ala Asn Ser Met Leu Val Gln His Pro Glu Val Lys His Trp Leu
                    230
                                        235
Val Val Gly Met Asn Asp Asn Thr Val Leu Gly Gly Val Arg Ala Thr
               245
                                    250
Glu Gly Gln Gly Phe Lys Ala Pro Asp Val Ile Gly Ile Gly Ile Asn
                                265
                                                    270
            260
Gly Val Asp Ala Val Ser Glu Leu Ser Lys Ala Gln Ala Thr Gly Phe
       275
                            280
Tyr Gly Ser Leu Leu Pro Ser Pro Asp Val His Gly Tyr Lys Ser Ser
                        295
                                            300
   290
Glu Met Leu Tyr Asn Trp Val Thr Lys Gly Ala Glu Pro Pro Lys Phe
                   310
                                        315
Thr Glu Val Thr His Val Val Leu Ile Thr Arg Asp Asn Phe Lys Glu
                                    330
                325
Glu Leu Ala Lys Lys Gly Leu Gly Gly Lys
            340
<210> 6553
<211> 180
<212> PRT
<213> Enterobacter cloacae
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<400> 6553

10 Thr Met Met Gln Lys Leu Asn Ala Gln Met Asn Leu Glu Phe Tyr Ala Ser Asn Leu His Leu His Leu Ser Ala Trp Cys Ser Arg Lys Ser Leu 40 Asn Gly Thr Ala Thr Phe Phe Arg Thr Gln Ala Gln Ser Asn Val Thr His Met Met Arg Val Phe Asn Phe Leu Lys Ala Val Gly Ala Asn Pro 70 Thr Val Lys Glu Leu Glu Thr Ile Glu Asp Asn Tyr Thr Ser Leu Glu Glu Leu Phe Gln Lys Thr Leu Glu Glu Tyr Glu Gln Arg Cys Ala Lys 105 Leu Ser Lys Leu Ala Asp Glu Ala Lys Ala Gln Gln Asp. Ile Ile Thr 120 125 Leu Thr Phe Leu Arg Asp Met Asp Arg Glu Gln Gln Asp Gly Met 135 140 Leu Leu Lys Thr Leu Ala Asp Glu Ile Arg Asn Ala Lys Arg Ala Gly 150 155 Ile Cys Leu Glu Gln Thr Asp Arg His Leu Leu Asp Ile Ala Thr Val 170 Gln His His

Arg Thr Ser Ser Pro Thr Val Asn Lys Asp Met Arg Met Thr Thr His

180

<210> 6554 <211> 452 <212> PRT

## <213> Enterobacter cloacae

<400> 6554 Arg Gly Ser Ile Met Ile Thr Ile Glu Phe Ile Val Ile Ile Leu Cys 10 Leu Leu Ile Gly Thr Arg Phe Gly Gly Met Gly Leu Gly Leu Ile Ser 20 25 Gly Ile Gly Leu Phe Ile Leu Ser Phe Val Phe Gly Leu Gln Pro Gly Lys Pro Pro Val Asp Val Met Leu Thr Ile Leu Ala Val Ile Gly Cys 55 Ala Ala Thr Leu Gln Thr Ala Gly Gly Leu Asn Val Met Met Gln Phe 75 Ala Glu Arg Leu Arg Lys His Pro Gln His Ile Thr Leu Leu Ala 85 90 Pro Phe Thr Trp Met Leu Thr Phe Leu Cys Gly Thr Gly His Val 105 100 110 Val Tyr Thr Met Phe Pro Ile Ile Ala Asp Ile Ala Leu Lys Lys Gly 120 125 Ile Arg Pro Glu Arg Pro Met Ala Val Ala Ser Val Ala Ser Gln Met 135 140 Ala Ile Thr Ala Ser Pro Val Ser Val Ala Val Val Ser Leu Val Ser 150 155 Ile Leu Gly Ala Gln His Gly Ile Gly His Ala Trp Gly Ile Leu Glu 165 170 Ile Leu Ala Val Ser Val Pro Ala Ser Leu Ser Gly Val Ala Ile Ala 180 185 Ala Leu Trp Ser Leu Arg Arg Gly Lys Asn Leu Ala Asp Asp Thr Glu 195 200 205 Phe Gln Glu Lys Leu Lys Asp Pro Lys Gln Arg Glu Phe Ile Tyr Gly 215 Gly Thr Glu Thr Leu Met Asp Gln Arg Phe Pro Lys Gln Ala Tyr Trp 230 235 Ser Thr Trp Ile Phe Phe Ala Gly Ile Ala Val Val Leu Leu Gly 245 250 Ala Leu Pro Glu Leu Arg Pro Ala Phe Glu Ile Lys Gly Lys Met Thr Ala Leu Ser Met Asn Leu Val Ile Gln Met Met Leu Ile Ala Gly Ala Ile Met Leu Met Thr Cys Lys Val Asn Ala Ser Ala Ile Ser Asn 295 Gly Ala Val Phe Lys Ala Gly Met Val Ala Ile Phe Ser Val Phe Gly 310 315 Val Ala Trp Met Ser Asp Thr Phe Phe Gln Ala His Leu Asp Glu Leu 330 Lys Met Ala Leu Glu Gly Val Val Lys Ser His Pro Trp Thr Tyr Ala 345 340 Ile Val Leu Phe Leu Val Ser Lys Leu Val Asn Ser Gln Ala Ala Ala 360 365 Leu Thr Ala Val Ala Pro Met Gly Leu Met Leu Gly Ile Asp Pro Lys 375 380 Met Leu Val Ala Phe Phe Pro Ala Ser Tyr Gly Tyr Phe Val Leu Pro 390 395 Thr Tyr Pro Ser Asp Leu Ala Cys Ile Gly Phe Asp Arg Ser Gly Thr 405 410 Thr Arg Ile Gly Lys Phe Ile Ile Asn His Ser Phe Ile Leu Pro Gly 425 Leu Ile Gly Val Ser Cys Ala Cys Val Val Ser Tyr Leu Leu Val Gln 440 Thr Phe Phe 450

<210> 6555 <211> 422 <212> PRT <213> Enterobacter cloacae <400> 6555 Ala Gly Arg Lys Arg Met Ser Glu Asn Val Ser Gly Lys Glu Ser Arg 10 Gly Leu Ser Pro Ala Ala Leu Leu Val Ala Gly Ala Phe Phe Met Glu 25 Phe Leu Asp Gly Thr Val Ile Ala Thr Ala Leu Pro Asp Met Ala Lys 40 Ser Phe Gly Val Gln Ala Val Asp Leu Asn Ile Gly Ile Ser Ala Tyr 55 Leu Ile Thr Leu Ala Val Leu Ile Pro Ala Ser Gly Trp Ile Ala Asp 75 Arg Phe Gly Ala Arg Lys Val Phe Ala Leu Ala Leu Ala Ile Phe Thr 8.5 90 Leu Ala Ser Val Phe Cys Gly Leu Ser Thr Thr Leu Asp Gln Phe Val 100 105 110 Ala Met Arg Val Leu Gln Gly Met Gly Gly Ala Leu Met Val Pro Val 115 120 125 Gly Arg Leu Ala Val Leu Arg Thr Thr Pro Lys His Gln Leu Ile Thr 130 135 140 Ala Ile Ala Thr Leu Thr Trp Pro Ala Leu Val Ala Pro Ile Ile Gly 150 155 Pro Pro Leu Gly Gly Phe Ile Thr Ser Tyr Ala Asp Trp Arg Trp Ile 165 170 175 Phe Phe Ile Asn Val Pro Leu Gly Ile Ile Ala Ile Leu Leu Ala Leu 185 190 Arg Ile Ile Pro Asp Leu His Glu Asp Thr Arg Arg Pro Phe Asp Leu 200 205 Pro Gly Phe Val Val Thr Thr Leu Ala Met Val Ser Leu Val Tyr Ala 215 220 Met Glu Leu Met Gly Ala Glu Pro Leu Arg Thr Gly Leu Thr Ala Thr 235 230 Leu Phe Ile Val Gly Ile Val Ala Leu Ser Leu Ala Leu Arg His Phe 250 Lys Arg Thr Thr Trp Pro Met Ile Arg Leu Asp Ala Met Gln Val Pro 265 Thr Phe Arg Val Thr Leu Tyr Gly Gly Ser Leu Phe Arg Ala Ser Ile 280 285 Ser Ala Val Pro Phe Leu Leu Pro Leu Met Phe Gln Val Gly Phe Gly 295 300 Met Asp Ala Phe His Ser Gly Leu Leu Val Leu Ala Val Phe Val Gly 310 315 Asn Leu Thr Ile Lys Pro Ala Thr Thr Pro Leu Ile Arg Ser Leu Gly 325 330 335 Phe Lys Arg Leu Leu Ile Asn Gly Ala Leu Asn Val Leu Ala Leu 345 350 Leu Ala Cys Ala Phe Leu Thr Pro Gln Thr Pro Ala Trp Leu Val Met 360 365 Leu Ile Leu Tyr Leu Gly Gly Val Phe Arg Ser Ile Gln Phe Thr Ala 375 380 Ile Ser Thr Leu Ala Phe Ala Asp Val Pro Ser Val Gln Met Cys Tyr 390 395 Ala Asn Ile Leu Phe Ser Thr Ala Thr Gln Arg Leu Asp His Gly Ala 410 Gly Ala Ser Ala Cys Gly

420

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<210> 6556
<211> 80
<212> PRT
<213> Enterobacter cloacae
<400> 6556
Leu Thr Leu Arg Cys Glu Ala Glu Phe Asn Gln Arg Asn Arg Phe Leu
Asp Arg Ala Glu Arg Asn Arg Val Arg Arg Ser Arg Met Val Gly Glu
            20
                                25
Ile Asp Val Phe Gln Leu Gly Arg His Leu Phe Ala Tyr Leu Asn Arg
                            40
Arg Asp Asn Val Asn His Ile Lys Asp Leu Phe Asp Asn Gln Leu Ala
Gly Asp Asp Val Arg Tyr Gln Phe Leu Ile Gly Ala Gln Val Leu
                    70
<210> 6557
<211> 212
<212> PRT
<213> Enterobacter cloacae
<400> 6557
Ser Pro Ser Arg Gly Glu Lys Pro Leu Asp Ile Ser Ser Thr His Tyr
Leu Asp Ile Asn His Ala Asp Ile Val Ala Arg Ile Asp Leu Thr Glu
Trp Glu Thr Asn Pro Glu Ser Thr Arg Tyr Leu Thr Phe Leu Lys Gly
Arg Val Gly Arg Lys Val Ala Asp Phe Phe Met Asp Phe Leu Gly Ala
Ser Glu Gly Leu Asn Ala Lys Ala Gln Asn Lys Gly Leu Leu Gln Ala
Val Asp Asp Phe Thr Ala Glu Ala Gln Leu Asp Lys Ser Glu Arg Gln
Asn Val Arg Gln Gln Val Tyr Ser Tyr Cys Asn Glu Gln Leu Gln Ala
                                105
Gly Glu Glu Ile Glu Leu Glu Ser Leu Ser Lys Glu Leu Ala Gly Val
                            120
       115
                                                125
Ser Glu Val Ser Phe Gln Glu Phe Thr Ala Glu Lys Gly Tyr Glu Leu
                        135
                                            140
Glu Glu Ser Phe Pro Ala Asp Arg Ser Thr Leu Arg Gln Leu Thr Lys
                    150
                                        155
Phe Ala Gly Ser Gly Gly Leu Thr Ile Asn Phe Asp Ala Met Leu
                165
                                    170
Leu Gly Glu Arg Ile Phe Trp Asp Pro Ala Thr Asp Thr Leu Thr Ile
            180
                               185
                                                    190
Lys Gly Thr Pro Pro Asn Leu Arg Asp Gln Leu Gln Arg Arg Thr Ser
       195
                            200
Gly Gly Lys
   210
<210> 6558
<211> 239
<212> PRT
<213> Enterobacter cloacae
<400> 6558
Lys Asp Phe Met Arg Leu Asp Lys Phe Ile Ala Gln Gln Leu Gly Val
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Ser Arg Ala Ile Ala Gly Arg Glu Ile Arg Ala Ser Arg Val Thr Val 25 Asp Gly Asp Ile Val Lys Asp Ser Ala Phe Lys Leu Gln Pro Glu His 40 Gln Val Glu Tyr Asp Gly Asn Pro Leu Thr Gln Gln Asn Gly Pro Arg 55 Tyr Phe Met Leu Asn Lys Pro Glu Gly Tyr Val Cys Ser Thr Asp Asp 70 75 Pro Asp His Pro Thr Val Leu Tyr Phe Leu Asp Glu Pro Val Ala His Lys Leu His Ala Ala Gly Arg Leu Asp Ile Asp Thr Thr Gly Leu Val 105 Leu Met Thr Asp Asp Gly Gln Trp Ser His Arg Ile Thr Ser Pro Arg 120 125 His His Cys Glu Lys Thr Tyr Arg Val Thr Leu Glu Ser Pro Val Ser 135 140 Asp Asp Thr Ala Glu Gln Phe Ala Lys Gly Val Gln Leu His Asn Glu 150 155 Lys Asp Leu Thr Lys Pro Ala Val Leu Glu Ile Ile Thr Pro Thr Asp 165 170 Val Arg Leu Thr Ile Ser Glu Gly Arg Tyr His Gln Val Lys Arg Met 180 185 190 Phe Ala Ala Val Gly Asn His Val Val Gly Leu His Arg Glu Arg Ile 200 205 Gly Ala Ile Glu Leu Asp Pro Asp Leu Ala Pro Gly Glu Tyr Arg Pro 215 220 Leu Thr Glu Glu Glu Ile Ala Ser Val Gly Leu Pro Ser Arg 230

<210> 6559

<211> 405

<212> PRT

<213> Enterobacter cloacae

<400> 6559

Ile Gln Glu Asn Ser Val Thr Thr Arg Pro His Ser Ser Phe Lys Ile 10 Val Phe Ile Leu Gly Leu Leu Ala Met Leu Met Pro Leu Ser Ile Asp Met Tyr Leu Pro Ala Leu Pro Val Ile Ser Ala Gln Phe Gly Val Pro Ala Gly Ser Ala Gln Met Thr Leu Ser Thr Tyr Ile Leu Gly Phe Ala Leu Gly Gln Leu Phe Tyr Gly Pro Met Ala Asp Ser Leu Gly Arg Lys 75 Pro Val Ile Leu Gly Gly Thr Leu Ile Phe Ala Ala Ala Val Ala 8.5 90 Cys Ala Leu Ala Gln Ser Ile Asp Gln Leu Ile Val Met Arg Phe Phe 100 105 His Gly Leu Ala Ala Ala Ala Ser Val Val Ile Asn Ala Leu Met 120 125 Arg Asp Val Tyr Pro Lys Glu Glu Phe Ser Arg Met Met Ser Phe Val 135 140 Met Leu Val Thr Thr Ile Ala Pro Leu Val Ala Pro Met Val Gly Gly 150 155 Ala Val Leu Val Trp Phe Ser Trp His Ala Ile Phe Trp Ile Leu Ala 170 Ile Ala Ala Leu Leu Ala Ser Val Met Ile Phe Val Phe Ile Asp Glu 185 Thr Leu Pro Val Glu Arg Arg Gln Lys Phe His Val Arg Thr Thr Leu 200

Gly Asn Phe Ala Ser Leu Phe Arg His Lys Arg Val Leu Ser Tyr Met 215 220 Leu Ala Ser Gly Phe Ser Phe Ala Gly Met Phe Ser Phe Leu Ser Ala 230 235 Gly Pro Phe Val Tyr Ile Glu Leu Asn His Val Ser Pro Gln His Phe 245 250 Gly Tyr Tyr Phe Ala Leu Asn Ile Val Phe Leu Phe Val Met Thr Ile 265 Ile Asn Ser Arg Phe Val Arg Arg Val Gly Ala Leu Asn Met Phe Arg 280 Ala Gly Leu Trp Ile Gln Phe Val Met Ala Ile Trp Leu Val Leu Ser 295 Ala Leu Leu Gly Val Gly Phe Trp Ala Leu Val Val Gly Val Ala Ala 315 310 Phe Val Gly Cys Val Ser Met Val Ser Ser Asn Ala Met Ala Val Ile 325 330 Leu Asp Glu Phe Pro His Met Ala Gly Thr Ala Ser Ser Leu Ala Gly 345 350 340 Thr Phe Arg Phe Gly Ile Gly Ala Ile Val Gly Ala Leu Leu Ser Thr 355 360 365 Ala Thr Phe Asn Thr Ala Trp Pro Met Leu Trp Ala Ile Ala Leu Cys 375 380 Ala Thr Cys Ser Ile Leu Phe Tyr Leu Tyr Ala Ser Arg Pro Arg Lys 390 395 Thr Ala His Lys 405 <210> 6560 <211> 124 <212> PRT <213> Enterobacter cloacae <400> 6560

<210> 6561 <211> 133

<212> PRT

<213> Enterobacter cloacae

<400> 6561

Lys Arg Met Glu Gln Val Ala Gln Arg Ala Ile Ala His Ser Ile Gly 1 5 10 15 Gln Ala Val Leu Asn Val Ala Val Glu Ser Ser Ala Pro Thr Ile Ala 20 25 30 Pro Ile Pro Lys Arg Asn Val Pro Ala Ser Asp Glu Ala Val Pro Ala

40 Ile Cys Gly Asn Ser Ser Arg Ile Thr Ala Ile Ala Leu Asp Glu Thr 5.5 60 Ile Asp Thr Gln Pro Thr Asn Ala Ala Thr Pro Thr Thr Ser Ala Gln 70 75 Lys Pro Thr Pro Ser Asn Ala Leu Asn Thr Ser Gln Ile Ala Ile Thr 85 90 Asn Trp Ile His Ser Pro Ala Arg Asn Ile Phe Ser Ala Pro Thr Arg 105 Arg Thr Lys Arg Leu Leu Ile Met Val Ile Thr Asn Arg Asn Thr Ile 120 Phe Ser Ala Lys 130 <210> 6562 <211> 592 <212> PRT <213> Enterobacter cloacae <400> 6562 Leu Asn Arg Glu Ala Met Thr Phe Thr Leu Arg Pro Tyr Gln Glu Ala Val Asp Ala Thr Leu Ala Trp Phe Arg Lys His Arg Glu Pro Ala 20 Ala Ile Val Leu Pro Thr Gly Ala Gly Lys Ser Leu Val Ile Ala Glu Leu Ala Arg Leu Ala Arg Gly Arg Val Leu Val Leu Ala His Val Lys 55 Glu Leu Val Ala Gln Asn His Ala Lys Tyr Cys Ala Leu Gly Leu Glu 70 75 Ala Asp Ile Phe Ala Ala Gly Leu Lys Arg Lys Glu Ser His Gly Lys 90 Val Val Phe Gly Ser Val Gln Ser Val Ala Arg Asn Leu Glu Leu Phe 100 105 Arg Ser Glu Phe Ser Leu Leu Ile Val Asp Glu Cys His Arg Ile Ser 120 Asp Asp Asp Ser Gln Tyr Gln Gln Ile Leu Thr His Leu Lys Lys 135 140 Val Asn Pro His Leu Arg Leu Leu Gly Leu Thr Ala Thr Pro Phe Arg 150 Leu Gly Lys Gly Trp Ile Tyr Gln Phe His Tyr His Gly Met Val Arg 165 170 Gly Asp Glu Lys Ala Leu Phe Arg Asp Cys Ile Tyr Glu Leu Pro Leu 185 Arg Tyr Met Ile Lys His Gly Tyr Leu Thr Pro Pro Glu Arg Leu Asp 200 Met Pro Val Val Gln Tyr Asp Phe Ser Arg Leu Gln Ala Gln Ser Asn 215 220 Gly Leu Phe Ser Glu Ala Asp Leu Asn His Glu Leu Lys Lys Gln Lys 230 235 Arg Ile Thr Pro His Ile Ile Ser Gln Ile Glu Glu Phe Ala Gln Thr 250 245 Arg Lys Gly Val Met Ile Phe Ala Ala Thr Val Glu His Ala Arg Glu 260 265 Ile Thr Gly Leu Leu Pro Ala Asp Asp Ala Ala Leu Ile Thr Gly Glu 280 Thr Pro Gly Pro Glu Arg Asp Ser Leu Ile Glu Asp Phe Lys Ala Gln 295 300 Arg Phe Arg Tyr Leu Val Asn Val Ser Val Leu Thr Thr Gly Phe Asp

315

Ala Pro His Val Asp Leu Ile Ala Ile Leu Arg Pro Thr Glu Ser Val

330 325 Ser Leu Tyr Gln Gln Ile Val Gly Arg Gly Leu Arg Leu Ala Pro Gly 340 345 Lys Thr Asp Cys Leu Ile Leu Asp Tyr Ala Gly Asn Pro His Asp Leu 360 365 Tyr Ser Pro Glu Val Gly Thr Pro Lys Gly Lys Ser Asp Asn Val Pro 375 380 Val Gln Val Phe Cys Pro Ala Cys Gly Phe Ala Asn Thr Phe Trp Gly 390 395 Lys Thr Thr Ala Asp Gly Thr Leu Ile Glu His Phe Gly Arg Arg Cys 410 Gln Gly Trp Phe Glu Asp Asp Glu Gly His Arg Glu Gln Cys Asp Phe 420 425 Arg Phe Arg Phe Lys Asn Cys Pro Gln Cys Asn Ala Glu Asn Asp Ile 440 Ala Ala Arg Arg Cys Arg Glu Cys Asp Thr Val Leu Val Asp Pro Asp 455 460 Asp Met Leu Lys Ala Ala Leu Lys Leu Lys Asp Ala Leu Val Leu Arg 470 475 Cys Ser Gly Met Ala Leu Gln Pro Gly Ala Asp Glu Lys Gly Glu Trp 490 485 Leu Lys Ile Thr Tyr Tyr Asp Glu Asp Gly Ala Asp Val Ser Glu Arg 500 505 Phe Arg Val Gln Thr Ser Ala Gln Arg Thr Ala Phe Glu Gln Leu Phe 520 525 Ile Arg Pro His Thr Arg Thr Pro Gly Val Pro Leu Arg Trp Leu Thr 535 Val Ala Asp Ile Val Arg Gln Gln Ala Leu Leu Arg His Pro Asp Phe 550 555 Val Val Ala Arg Lys Lys Gly Gln Phe Trp Gln Val Arg Glu Lys Val 570 Phe Asp Tyr Glu Gly Arg Phe Arg Arg Ala Asn Glu Leu Arg Gly 580 585

<210> 6563

<211> 345

<212> PRT

<213> Enterobacter cloacae

<400> 6563

Gly Pro Leu Met Ser Arg Leu Ser Pro Val Asn Gln Ala Arg Trp Ala 10 Arg Phe Arg His Asn Arg Arg Gly Tyr Trp Ser Leu Trp Ile Phe Ala 25 Val Leu Phe Ala Leu Ser Met Cys Ser Glu Leu Ile Ala Asn Asp Lys 40 4.5 Pro Leu Leu Val His Phe Lys Asp Arg Trp Tyr Val Pro Val Leu Thr 60 5.5 Thr Tyr Ser Glu Ser Asp Phe Gly Gly Pro Phe Ala Thr Pro Ala Glu 70 75 Tyr Gln Asp Pro Trp Leu Arg Glu Gln Ile Ala Gln His Gly Trp Ala 85 90 Ile Trp Ala Pro Ile Arg Phe Gly Ala Asn Ser Ile Asn Phe Ala Thr 105 Ser Thr Pro Phe Pro Ser Pro Pro Ser Ala Gln Asn Trp Leu Gly Thr 120 Asp Ala Asn Gly Gly Asp Val Leu Ala Arg Ile Leu Tyr Gly Thr Arg 135 Ile Ser Leu Leu Phe Gly Leu Met Leu Thr Leu Phe Ser Ser Val Met 150 155 Gly Val Val Ala Gly Ala Val Gln Gly Tyr Tyr Gly Gly Lys Ile Asp

165 170 Leu Trp Gly Gln Arg Val Ile Glu Val Trp Ser Gly Met Pro Thr Leu 185 Phe Leu Ile Ile Leu Leu Ser Ser Val Val Gln Pro Gly Phe Trp Trp 200 Leu Leu Gly Ile Thr Val Leu Phe Gly Trp Met Ala Leu Val Gly Val 215 220 Val Arg Ala Glu Phe Leu Arg Thr Arg Asn Tyr Asp Tyr Ile Arg Ala 235 230 Ala Gln Ala Leu Gly Val Ser Asp Arg Ala Ile Ile Phe Arg His Met 245 250 Leu Pro Asn Ala Val Val Ala Thr Leu Thr Phe Leu Pro Phe Ile Leu 265 270 260 Cys Ser Ser Ile Thr Thr Leu Thr Ser Leu Asp Phe Leu Gly Phe Gly 280 Leu Pro Leu Gly Ser Pro Ser Leu Gly Glu Leu Leu Gln Gly Lys 295 300 Asn Asn Leu Gln Ala Pro Trp Leu Gly Ile Thr Ala Phe Leu Ser Val 310 315 Ala Val Leu Ser Leu Leu Ile Phe Ile Gly Glu Ala Val Arg Asp 325 330 Ala Phe Asp Pro Asn Lys Ala Val 340

<210> 6564

<211> 302 <212> PRT

<213> Enterobacter cloacae

<400> 6564

Gly Pro Gly Leu Ala Thr Phe Ser Glu Asn His Thr Arg Ala Val Arg 10 Gly Leu Asn Pro Glu Val Ile Ala Glu Ile Thr His Arg Tyr Gly Leu 20 25 Asn Lys Pro Leu His Glu Arg Tyr Cys Arg Met Leu Trp Asp Tyr Val 40 45 Arg Phe Asp Phe Gly Asp Ser Leu Phe Arg Ser Ala Ser Val Leu Thr 55 Leu Ile Lys Gln Ser Leu Pro Val Ser Ile Thr Leu Gly Leu Trp Gly 70 75 Thr Leu Ile Ile Tyr Leu Val Ser Ile Pro Leu Gly Ile Arg Lys Ala 85 90 Val Tyr Asn Gly Ser Arg Phe Asp Ile Trp Ser Ser Thr Phe Ile Ile 105 100 Ile Gly Tyr Ala Ile Pro Ala Phe Leu Phe Ala Val Leu Leu Ile Val 120 125 115 Phe Phe Ala Gly Gly Ser Tyr Phe Asp Leu Phe Pro Leu Arg Gly Leu 135 140 Val Ser Ala Asp Phe Ser Thr Leu Pro Trp Tyr Gln Lys Ile Thr Asp 150 155 Tyr Phe Trp His Ile Thr Leu Pro Val Leu Ala Thr Val Ile Gly Gly 170 Phe Ala Ala Leu Thr Met Leu Thr Lys Asn Ala Phe Leu Asp Glu Ile 185 Arg Lys Gln Tyr Val Val Thr Ala Arg Ala Lys Gly Val Gly Glu Lys 200 Gln Ile Met Trp Lys His Val Phe Arg Asn Ala Met Leu Leu Val Ile 215 220

Ala Gly Phe Pro Ala Thr Phe Ile Ser Met Phe Phe Thr Gly Ser Leu

Leu Ile Glu Val Met Phe Ser Leu Asn Gly Leu Gly Leu Gly Tyr

235

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2727

250 245 Glu Ala Thr Val Ser Arg Asp Tyr Pro Val Met Phe Gly Thr Leu Tyr 265 Ile Phe Thr Leu Ile Gly Leu Leu Asn Ile Ile Ser Asp Ile Ser 280 Tyr Thr Leu Val Asp Pro Arg Ile Asp Phe Glu Gly Arg 295 <210> 6565 <211> 548 <212> PRT <213> Enterobacter cloacae <400> 6565 Phe Leu Leu Ala Lys Pro Cys Ala Met Pro Ser Ile Pro Thr Arg Arg Tyr Asp Met Thr Arg Pro Leu Leu Ser Ile Glu Asn Leu Ser Ile Ala Phe Ser Lys Gln Gly Glu Ser Arg Thr Val Val Thr Asp Leu Ser Leu Gln Ile Gln Arg Gly Glu Thr Leu Ala Leu Val Gly Glu Ser Gly Ser Gly Lys Ser Val Ser Ala Leu Ser Val Leu Arg Leu Leu Pro Ser Pro Pro Val Ser Tyr Pro Gln Gly Asp Ile Leu Phe His Gly Gln Ser Leu Leu Asn Ala Asp Glu Gln Thr Leu Arg Gly Ile Arg Gly Asn Asn Ile 100 105 Ala Met Ile Phe Gln Glu Pro Met Val Ser Leu Asn Pro Leu His Thr 120 Leu Glu Lys Gln Leu Tyr Glu Val Leu Ser Leu His Arg Gly Met Arg 135 140 Lys Glu Ala Ala Arg Gly Glu Ile Leu Asp Cys Leu Glu Arg Thr Gly 150 155 Ile Arg His Ala Ala Lys Arg Leu Asn Asp Phe Pro His Gln Leu Ser 165 170 Gly Glu Arg Gln Arg Val Met Ile Ala Met Ala Leu Leu Thr Arg 185 180 Pro Glu Leu Leu Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp Val Thr 200 Val Gln Ala Gln Ile Leu Gln Leu Leu Arg Glu Leu Arg Asp Glu Leu 215 220 Asn Met Ser Leu Leu Phe Ile Thr His Asn Leu Ser Ile Val Lys 230 235 Leu Ala Asp Ala Val Ala Val Met Gln Asn Gly Arg Cys Val Glu Gln 245 250 Asn Arg Ala Ser Ala Leu Leu Ser Ala Pro Gln His Pro Tyr Thr Gln 260 265 270 Arg Leu Leu Asp Ser Glu Pro Ala Gly Asp Pro Val Pro Leu Asn Ala 280 285 Asp Cys Ala Pro Leu Leu Ser Val Glu Gly Leu Ser Val Ser Phe Pro 295 • 300 Ile Arg Lys Gly Ile Leu Arg Arg Val Val Asp His Asn His Val Leu 310 315 Lys Asp Met Ser Phe Ala Leu Arg Pro Gly Glu Ser Leu Gly Leu Val 330 . 325 Gly Glu Ser Gly Ser Gly Lys Ser Thr Thr Gly Leu Ala Leu Leu Arg 345 Leu Ile Ala Ser Gln Gly Ser Ile Val Phe Asp Gly Met Pro Leu Gln 360 Asn Leu Asn Arg Arg Met Met Leu Pro Val Arg Pro Arg Met Gln Val

		70					375					380				
Va 38		he	Gln	Asp	Pro	Asn 390	Ser	Ser	Leu	Asn	Pro 395	Arg	Leu	Ser	Val	Leu 400
G1	ln I	le	Ile	Glu	Glu 405	Gly	Leu	Arg	Val	His 410	Gln	Pro	Thr	Met	Thr 415	Ala
G1	ln G	ln	Arg	Glu 420	Ile	Asp	Val	Lys	Arg 425	Val	Met	Glu	Glu	Val 430	Gly	Leu
As	sp P	ro	Glu 435	Thr	Arg	His	Arg	Tyr 440	Pro	Ala	Glu	Phe	Ser 445	Gly	Gly	Gln
Ar	-	ln 50	Arg	Ile	Ala	Ile	Ala 455	Arg	Ala	Leu	Ile	Leu 460	Lys	Pro	Glu	Leu
I1 46		al	Leu	Asp	Glu	Pro 470	Thr	Ser	Ser	Leu	Asp 475	Arg	Thr	Val	Gln	Ala 480
		le	Leu	Ala	Leu 485	Leu	Lys	Gly	Leu	Gln 490	Glu	Lys	His	Arg	Leu 495	Ala
Тy	yr I	le	Phe	Ile 500	Ser	His	Asp	Leu	Gln 505	Val	Val	Arg	Ala	Leu 510	Cys	His
G1	ln V	al	Val 515		Leu	Arg	Gln	Gly 520		Val	Val	Glu	Gln 525	Gly	Glu	Cys
G1		rg 30		Phe	Thr	Ala	Pro 535	Thr	Gln	Asp	Tyr	Thr 540	Arg	Gln	Leu	Leu
S∈ 54	er A		Asp													
<210> 6566 <211> 160 <212> PRT <213> Enterobacter cloacae																
< 4	100>	65	66													
				Asp	Ala 5	Gly	Asn	Leu	Phe	Phe 10	Arg	Gln	Arg	Ala	Ile 15	Phe
	10 Т	rp	Arg	Gln 20	Val	Trp	Ile	Glu	Phe 25		Arg	Ala	Asp	Thr 30	Phe	Thr
M∈	et G	ln	Pro 35	His	Asn	Val	Val	Ala 40	His	Gly	Gly	Lys	His 45	Pro	Phe	His
L€	eu V		Ile	Ala	Ala	Phe	Thr 55	Asp	Gly	Gln	Ala	His 60	Val	Ser	Trp	Ser
As 65		sp	Phe	Gln	His	Arg 70	Arg	Phe	Gly	Gln	Ile 75	Phe	Phe	Ile	Met	Gln 80
Le	eu A	sn	Ala	Phe	Cys 85	Glu	Leu	Leu	Cys	Arg 90	Val	Ile	Arg	Asp	Arg 95	Arg
Le	eu L	ys	Arg	His 100		Ile	Gly	Phe	Leu 105	Thr	Val	Met	Ala	Arg 110	Gly	Gly
As	sp A	la	Met 115	Arg	Pro	Leu	Ala	Val 120	Ile	Gly	His	Gln	His 125	Gln	Ala	Gly
G1	_	le 30	Asn	Ile	Gln	Ser	Pro 135	Cys	Arg	Met	Gln	Leu 140	Val	Arg	His	Arg
	ne V 15	al	Glu	Glu	Val	Glu 150	His	Arg	Arg	Val	Ile 155	Arg	Ile	Val	Arg	160
<210> 6567 <211> 121 <212> PRT <213> Enterobacter cloacae																
	100>					_	<b>5</b> 1		0.7		<b>.</b>				<b>.</b> .	
1		-			5		Phe			10					15	
L∈	eu L	eu	Gly	Gln 20	Arg	Val	Ala	Val	Ile 25	Leu	His	Leu	Val	Leu 30	Arg	Leu

Glu Phe Lys Ser Ala Val Phe His Asn Val Ala Val His Gly Tyr Ala 35

Ala Gly Ala Asn Phe Thr Pro Gly Asn Ser Ala Ala Tyr Ala Glu Leu 50

Leu Ser Asp Lys Leu Ile Lys Ser His Glu Ile Phe Leu Ala Leu Met 75

Val Leu Glu Val Gly Leu Arg Val Arg Lys Arg Ser Ser Gln Lys Gln 85

Phe Ser Ile Met Val Trp Leu Arg His Ser Arg Glu Lys Val Ser Trp 100

His Thr Ile Cys Glu Leu Thr Glu 1120

<210> 6568 <211> 103

<212> PRT

<213> Enterobacter cloacae

<400> 6568

Ile Asp Phe Val Arg Ala 100

<210> 6569 <211> 496

<212> PRT

<213> Enterobacter cloacae

<400> 6569

Glu Ile Thr Met Leu Leu Ser Ser Thr Arg Lys Asp Trp Leu Gly Asn Val Arg Gly Asp Val Leu Ala Gly Ile Val Val Ala Leu Ala Leu Ile Pro Glu Ala Ile Ala Phe Ser Ile Ile Ala Gly Val Asp Pro Gln Val Gly Leu Tyr Ser Ala Phe Cys Ile Pro Leu Val Met Ala Phe Phe Gly 55 Gly Arg Pro Ala Met Ile Ser Ser Ser Thr Gly Ala Met Ala Leu Leu 75 Met Val Thr Leu Val Lys Asp His Gly Leu Gln Tyr Leu Leu Ala Ala 90 85 Ser Ile Leu Thr Gly Val Phe Gln Leu Ile Ala Gly Tyr Leu Lys Leu 105 110 Gly Gly Leu Met Arg Phe Val Ser Arg Ser Val Val Thr Gly Phe Val 120 Asn Ala Leu Ala Ile Leu Ile Phe Met Ala Gln Leu Pro Glu Leu Thr 135 140 Asn Val Thr Trp His Val Tyr Ala Met Thr Ala Ala Gly Leu Gly Ile 150 155

Ile Tyr Leu Phe Pro Tyr Ile Asn Lys Thr Ile Pro Ser Pro Leu Val

170 Cys Ile Val Val Leu Thr Gly Ile Ala Met Trp Leu His Leu Asp Val 185 Arg Thr Val Gly Asp Met Gly Lys Leu Pro Asp Ser Leu Pro Val Phe 200 Leu Leu Pro Asp Val Pro Leu Asn Leu Gln Thr Leu Leu Ile Ile Leu 215 220 Pro Tyr Ser Ala Gly Leu Ala Val Gly Leu Leu Glu Ser Met Met 230 235 Thr Ala Thr Ile Val Asp Asp Met Thr Asp Thr Pro Ser Asp Lys Asn 245 250 Arg Glu Cys Lys Ala Gln Gly Ile Ala Asn Ile Cys Thr Ser Phe Ile 270 260 265 Gly Gly Met Ala Gly Cys Ala Met Ile Gly Gln Ser Val Ile Asn Val 280 Lys Ser Gly Gly Arg Gly Arg Leu Ser Thr Leu Thr Ala Gly Val Val 295 300 Leu Leu Cys Leu Ile Val Phe Leu Arg Asn Trp Val Ser Gln Ile Pro 310 315 Met Ala Ala Leu Val Ala Val Met Ile Met Val Ser Ile Gly Thr Phe 330 Ser Trp Arg Ser Ile Ala Asn Leu Arg Thr His Pro Leu Ser Thr Ser 340 345 Val Val Met Leu Ala Thr Val Ala Val Val Ala Thr His Asn Leu 360 Ala Phe Gly Val Leu Thr Gly Val Leu Ile Ala Ser Leu Asn Phe Ala 375 Thr Lys Val Ser Arg Phe Met Arg Val Thr Ser Val Leu Glu Gly Thr 390 395 Ser Arg Thr Tyr Thr Val Thr Gly Gln Val Phe Phe Ala Ser Ala Asp 410 405 Arg Phe Thr Ser His Phe Asp Phe Arg Glu Ala Ile Glu Asn Val Val 425 420 430 Ile Asp Val Ser His Ala His Phe Trp Asp Ile Thr Ser Val Ser Ala 440 445 Leu Asp Lys Val Val Ile Lys Phe Arg Arg Glu Gly Ala Gly Val Glu 455 460 Ile Arg Gly Met Asn Glu Ala Thr Arg Thr Ile Val Asp Arg Phe Gly 475 470 Val His Asp Lys Pro Glu Glu Val Glu Lys Leu Met Gly Gly His

<210> 6570

<211> 282

<212> PRT

<213> Enterobacter cloacae

## <400> 6570

Ile

230

· 235

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410

Gly Gly His Tyr Arg Trp Pro Gly Trp Leu Asp Arg Ile Asn Thr Ser

420 425 Gly Leu Ile Arg Ser Met Ser Arg Lys Gly Cys Ser Ser Asp Asn Ala 440 445 Ala Cys Glu Gly Phe Phe Gly Arg Ile Lys Asn Glu Met Phe Tyr Gly 455 460 Arg Asn Trp Thr Gly Ile Thr Leu Glu Lys Phe Ile Cys Phe Leu Asp 475 470 Arg Tyr Ile Arg Trp Tyr Asn Glu Lys Arg Ile Lys Leu Ser Leu Gly 485 490 Ala Met Ser Pro Val Lys Tyr Arg Gln His Leu Gly Ile Thr Thr <210> 6573 <211> 481 <212> PRT <213> Enterobacter cloacae <400> 6573 Val Lys Met Ser Gly Val Tyr Asn Gln Val Arg Ile Thr Met Thr Ala Leu Ala Ala Glu Phe Phe Thr Leu Asp Glu Val Asn Arg Leu Lys Ile 20 25 Ile Gln Asp Val Ile Asp Arg Arg Leu Thr Thr Gln Met Ala Ala Gln 40 Arg Leu Gly Ile Ser Asp Arg Gln Cys Arg Arg Leu Leu Ala Arg Tyr 55 Arg Glu Asp Gly Pro Ile Gly Met Thr Ser Arg Arg Gly Lys Ser 7.5 Ser Asn Asn Gln Leu Pro Gln Gly Leu Ala Ala Tyr Ala Leu Asn Ile 90 Ile Arg Glu Arg Tyr Asn Asp Phe Gly Pro Thr Leu Ala Cys Glu Lys 105 Leu Ser Glu Val His Gly Val His Leu Ser Lys Glu Thr Val Arg Lys 120 Leu Met Thr Gln Ala Ser Leu Trp Val Pro Arg Lys Gln Arg Ala Pro 135 Lys Ile Gln Gln Pro Arg Tyr Arg Arg Ala Cys Ala Gly Glu Leu Ile 150 155 Gln Ile Asp Gly Cys Asp His His Trp Phe Glu Asn Arg Gly Pro Lys 165 170 Cys Thr Ala Leu Val Tyr Val Asp Asp Ala Thr Ser Arg Leu Met Gln 180 185 Leu Leu Phe Val Lys Ser Glu Ser Thr Phe Thr Tyr Phe Glu Ala Thr 200 Arg Gly Tyr Ile Glu Lys His Gly Lys Pro Leu Ala Leu Tyr Ser Asp 215 220 Lys Ala Ser Val Phe Arg Ile Asn Asn Lys Asn Ala Thr Gly Gly Asp 235 230 Gly Asp Thr Gln Phe Gly Arg Ala Met His Glu Leu Asn Ile Gln Thr 250 245 Ile Cys Ala Glu Thr Ser Ala Ala Lys Gly Arg Val Glu Arg Ala His 265 Leu Thr Leu Gln Asp Arg Leu Val Lys Glu Leu Arg Leu Gln Gly Ile 280 285 Ser Ser Met Glu Ala Ala Asn Ala Phe Ala Glu Glu Phe Met Asn Asp 295 300 Tyr Asn Arg Arg Phe Ala Lys Ala Pro Arg Gln Glu Phe Asp Val His 315 310 Arg Glu Leu Asp Val Asp Asp Asp Leu Asp Met Val Phe Asn Trp Arg 330 Glu Ala Arg Lys Val Ser Lys Ser Leu Thr Val Gln Tyr Asp Lys Val

345 350 340 Leu Tyr Leu Ile Glu Asp Ser Glu Phe Ser Arg Arg Ala Ile Gly Lys 360 365 Tyr Ile Asp Val Trp His Tyr Pro Asp Gly His Lys Glu Leu Arg Leu 375 380 Asn Gly Val Ser Leu Pro Tyr Ser Thr Tyr Asp Lys Leu Ser Glu Ile 390 395 Asp Gln Gly Ala Ile Val Asp Asn Lys Arg Leu Gly Arg Ala Leu Glu 410 Met Ala Gln Leu Val Gln Ala Glu Arg Asp Asn Asn Arg Ser Gln Ser 425 Val Pro Ser Gly Asp Gly Pro Ser Arg Arg Arg Lys Ala Pro Thr Thr 440 Lys Lys Ser Gln Arg Ser Leu Asp Gln Asp Asp Met Phe Asn Ala Leu 455 460 Val Lys Leu Gln Ser Arg Ser Glu Glu Ile Phe Gly Lys Lys Pro Ile 470 475

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<212> PRT

<213> Enterobacter cloacae

<400> 6574

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155

<210> 6575

<211> 125

<212> PRT

<213> Enterobacter cloacae

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<400> 6575

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 75
 80

 Glu Gly Lys Trp Val His Tyr Arg Leu Ser Pro His Met Pro Ala Trp 85
 90
 95

 Ala Ala Gly Ile Ile Asp Thr Ala Trp Asn Cys Glu Arg Glu Asn Ile 100
 105
 110

 Arg Asn Lys Leu Ser Ser Val Ala Ser Val Ser Cys 115
 120
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<213> Enterobacter cloacae

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<210> 6577 <211> 145 <212> PRT <213> Enterobacter cloacae

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145

<210> 6578 <211> 208 <212> PRT <213> Enterobacter cloacae

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135 Glu His Val His Arg Val Leu Ser Arg Trp Asp Asn Ser Lys Pro Ala 150 155 Asp Tyr Ala Val Gly Asp Ala Trp Gly Gly Ser Val Ile Tyr Pro Cys 165 170 Tyr Ser Leu Val Asp His Ala Asp Gly Glu Pro Val Glu Arg His Pro 185 Asp Ser Ala Pro Arg Thr Glu Arg Arg Arg Ala Trp Arg Leu Ala 200 <210> 6579 <211> 162 <212> PRT <213> Enterobacter cloacae <400> 6579 Glu Phe Ser Ile Met Ser Gly Pro Pro Lys Thr Pro Thr His Leu Arg Leu Val Arg Gly Asn Pro Ser Lys Arg Pro Ile Asn Glu Asn Glu Pro Lys Pro Pro Ser Gly Val Pro Pro Thr Pro Lys His Phe Asp Lys Gln 40 Gly Lys Tyr Trp Phe Lys Arg Met Ala Asp Glu Leu Asp Ala Ile Gly Val Met Ser Gln Leu Asp Ala Arg Ala Leu Glu Leu Leu Val Glu Ala 70 Tyr Thr Glu Tyr Arg His His Cys Asp Thr Leu Glu Val Glu Gly Tyr Thr Tyr Arg Thr Glu Thr Gln Ser Gly Asp Val Leu Ile Lys Ala His 105 Pro Ala Ala Ile Met Lys Ala Asp Ala Trp Lys Arg Leu Arg Ala Met 120 Leu Gly Glu Phe Gly Met Thr Pro Ala Ser Arg Ser Lys Val Asn Ala 135 140 Lys Gly Pro Glu Ala Val Asp Pro Leu Ala Glu Phe Met Lys Ala Arg 150 Asp <210> 6580 <211> 442 <212> PRT <213> Enterobacter cloacae <400> 6580 Ser His His Gly Arg Phe Leu Met Lys Lys Asn Lys Arg Pro Gly Arg 10 Val Lys Ser Ala Leu Leu Asn Trp Leu Gly Val Pro Ile Ser Leu Thr 25 Thr Gly Thr Phe Trp Glu Glu Trp Phe Gly Thr Ser Ser Gly Lys 40 Val Val Thr Ala Asp Lys Ala Ile Gln Leu Ser Ala Val Trp Ala Cys 55 Val Arg Leu Leu Ser Glu Ser Ile Ser Thr Leu Pro Leu Lys Ile Tyr 70 75 Val Arg Gln Pro Asp Gly Ser Arg Lys Ala Ala Thr Asp His Pro Ala 90

Tyr Ser Ile Leu Cys Arg Arg Pro Asn Ser Glu Met Thr Pro Ser Arg 100 105 110 Phe Met Leu Met Val Val Ala Ser Ile Cys Leu Arg Gly Asn Ala Phe

Ile Glu Lys Lys Phe Ile Ala Asn Arg Leu Val Ser Leu Val Pro Leu 135 Leu Pro Gln Asn Met Val Val Lys Arg Leu Val Thr Gly Ala Leu Glu 150 155 Tyr Lys Tyr Thr Glu Asn Gly Asn Glu Arg Val Ile Pro Val Lys Asn 165 170 Ile Met His Ile Arg Gly Phe Gly Leu Asp Gly Val Cys Gly Met Met 185 Pro Met Lys Thr Gly Arg Asp Val Ile Gly Ser Ala Met Ala Val Glu 200 195 Glu Ser Ala Ala Lys Ile Phe Glu Gln Gly Leu Gln Ser Ser Gly Phe 220 215 Leu Ser Ala Glu Asn Ala Leu Ser Asp Glu Gln Arg Glu Arg Leu Arg 235 230 Ser Tyr Met Ala Ala Phe Thr Gly Ser Lys Asn Ala Gly Lys Ile Met 250 245 Val Leu Glu Gly Gly Leu Lys Tyr Gln Gly Val Thr Met Asn Pro Glu 265 Asp Ala Gln Met Leu Glu Ser Arg Ser Phe Ser Ile Glu Glu Ile Cys 280 Arg Trp Phe Arg Val Pro Pro Phe Met Val Gly His Thr Thr Lys Gln 295 300 Ser Ser Trp Ala Ser Ser Leu Glu Gly Met Asn Leu Gln Phe Leu Thr 310 His Thr Leu Arg Pro Leu Leu Val Asn Ile Glu Gln Glu Ile Gly Arg 325 330 Cys Leu Leu Asp Ser Asp Glu Val Phe Ala Glu Phe Ser Val Glu 345 Gly Leu Leu Arg Ala Asp Ser Ala Gly Arg Ala Ala Tyr Tyr Thr Ser 360 Ala Leu Gln Asn Gly Trp Met Ser Arg Asn Asp Val Arg Arg Leu Glu 375 Asn Met Pro Pro Ile Glu Gly Gly Asp Ile Tyr Thr Val Gln Leu Asn 390 395 Leu Thr Gln Leu Lys Asn Leu Glu Ser Ser Asn Pro Ala Val Gln Ala 405 410 Leu Ala Leu Arg Glu Leu His Asn His Ile Phe Pro Asp Ile Ser Phe 425 420 Glu Gln Ser Pro Leu Lys Gln Ala Ala 435

<210> 6581 <211> 136

<212> PRT

<213> Enterobacter cloacae

<400> 6581

Asp Leu Ser Asn Leu Glu Ser Leu Cys Lys Pro Cys His Arg Ala Lys 115 120 Thr Ala Val Glu Arg Leu Lys 130 <210> 6582 <211> 590 <212> PRT <213> Enterobacter cloacae <400> 6582 Ser Ala Gly Arg Val Tyr Glu Ser Glu Gly Leu Met Ala Lys Val Ala 10 Glu Gly Ile Arg Tyr Ala Glu Arg Val Val Ala Gly Glu Ile Ile Ala 20 25 Cys Glu Tyr Val Arg Leu Ala Cys Gln Arg Phe Leu Asp Asp Leu Ala 40 His Gly Glu Glu Arg Gly Ile Phe Phe Ser Glu Pro Arg Ala Gln His 55 Ile Leu Asn Phe Tyr Asn Phe Val Pro His Val Lys Gly Ala Leu Ala 75 70 Gly Gln Pro Ile Glu Leu Met Asp Trp His Val Phe Ile Leu Ile Asn 85 90 Ile Phe Gly Phe Val Ile Pro Leu Val Asn Glu Glu Thr Gly Glu Thr 100 105 110 Val Leu Arg Asn Asp Gly Ser Gly Arg Pro Val Met Val Arg Arg Phe 115 120 125 Arg Thr Ala Asp Val Glu Val Ala Arg Lys Asn Ala Lys Ser Thr Leu 135 Cys Ser Gly Val Gly Leu Tyr Met Ala Gly Ala Asp Gly Glu Gly Gly 150 155 Ala Glu Val Tyr Ser Ala Ala Thr Thr Arg Asp Gln Ala Arg Ile Val 165 170 Phe Glu Asp Ala Lys Asn Met Val Lys Lys Ala Lys Ala Thr Leu Gly 180 185 Arg Ile Phe Glu Phe Asn Lys Leu Ala Ile Tyr Gln Glu Gln Thr Ala 200 Ser Lys Phe Glu Pro Leu Ser Ser Asp Ala Asn Asn Leu Asp Gly Leu 220 215 Asn Ile His Cys Ala Ile Val Asp Glu Leu His Ala His Lys Thr Arg 235 230 Asp Val Trp Asp Val Leu Glu Thr Ala Thr Gly Ala Arg Leu Gln Ser 245 250 Leu Leu Phe Gly Ile Thr Thr Ala Gly Phe Asn Lys Glu Gly Ile Cys 260 265 Tyr Glu Leu Arg Asp Tyr Ala Ile Lys Val Leu Arg Gly Leu Val Lys 280 285 Asp Asp Thr Phe Phe Ala Ile Ile Tyr Thr Leu Asp Glu Gly Asp Asp 295 300 Pro Phe Asp Glu Lys Val Trp Gln Lys Ala Asn Pro Gly Leu Gly Ile 310 315 Cys Lys Arg Trp Asp Asp Leu Arg Arg Leu Ala Lys Lys Ala Lys Glu 330 325 Gln Val Ser Ala Arg Ile Asn Phe Phe Thr Lys His Met Asn Ile Trp 345 350 Val Thr Ala Glu Ser Ala Trp Met Asp Met Met Lys Trp Glu Lys Cys 360 365 Glu Phe Ile Ala Pro Gln His Glu Leu Lys Thr Tyr Pro Ser Trp Val 375 380

Gly Val Asp Leu Ser Asn Lys Ile Asp Ile Cys Ala Ala Ala Lys Val

395

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Trp Arg Ala Pro Asp Gly His Val His Ala Asp Phe Lys Phe Trp Leu
                                    410
Pro Glu Gly Arg Leu Glu Lys Cys Ser Arg Gln Met Ala Glu Leu Tyr
                               425
Arg Lys Trp Ala Gly Met Asp Lys Leu Ile Leu Thr Asp Gly Asp Val
                            440
                                                445
Ile Asp His Ala Gln Ile Lys Glu Glu Leu Gln Leu Trp Val Ala Gly
                        455
                                            460
Glu Ser Leu Lys Glu Ile Gly Phe Asp Pro Trp Ser Ala Thr Gln Phe
                    470
                                        475
Ser Leu Ala Leu Ala Glu Glu Gly Leu Pro Leu Val Glu Val Pro Gln
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                                    490
Thr Val Arg Asn Phe Ser Glu Ala Met Lys Glu Val Glu Ala Leu Val
            500
                                505
                                                    510
Tyr Gly Gly Arg Phe His His Ser Asp His Pro Val Met Asn Trp Met
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                                                525
Met Ser Asn Val Thr Val Lys Pro Asp Arg Asn Glu Asn Ile Phe Pro
                        535
                                            540
Asn Lys Ser Thr Pro Glu Ala Lys Ile Asp Gly Pro Ala Ala Leu Phe
                                        555
                    550
Thr Ala Met Ser Arg Val Leu Val Asn Gly Gly Asn Asp Gln Gln Asp
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                                    570
Leu Ser Gly Phe Phe Asn Asn Pro Ile Met Val Gly Phe
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Pro Ser Ala Leu Asp Arg Trp Asp Gly Gly Ile Lys Ala Ala Ala Thr
                            40
Asp Asp Asn Ser Ile Ser Val Phe Asp Val Ile Gly Gln Asp Tyr Trp
                        55
Gly Glu Gly Val Thr Ala Lys Arg Ile Ala Gly Ala Leu Arg Ala Met
                                        75
                    70
Asn Gly Ala Asp Val Thr Val Asn Ile Asn Ser Pro Gly Gly Asp Met
               85
                                    90
Phe Glu Gly Leu Ala Ile Tyr Asn Leu Leu Arg Glu Tyr Glu Gly Arg
                               105
Val Thr Val Lys Val Leu Gly Ile Ala Ala Ser Ala Ala Ser Val Ile
                            120
                                                125
Ala Met Ala Gly Asp Asp Ile Leu Ile Gly Arg Gly Ala Phe Leu Met
                       135
                                            140
Ile His Asn Cys Trp Val Tyr Ala Met Gly Asn Arg His Asp Phe Ala
Glu Leu Ala Gln Ser Leu Glu Pro Phe Asp Asn Ala Met Ala Asp Ile
                                    170
Tyr Ala Ala Arg Ser Gly Leu Asp Met Ala Ala Val Gln Lys Leu Met
                               185
Asp Ala Glu Ser Tyr Ile Gly Gly Ser Asp Ala Val Ala Lys Gly Leu
                            200
Ala Asp Ser Leu Leu Ser Ala Asp Ala Val Ser Asp Gly Asp Glu Ser
                       215
                                            220
Pro Ala Ala Ala Leu Arg Lys Leu Asp Ala Leu Leu Ala Lys Thr Asn
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Thr Pro Arg Ser Glu Arg Arg Lys Leu Ile Lys Ala Leu Ser Gly Gly 245 250 Met Pro Gly Ala Val Thr Thr Asn Asp Gly Thr Pro Gly Ala Ala Glu 265 Asp Ile Lys Pro Glu Thr Leu Asn Ser Leu Glu Ser Ala Leu Ala Ala 275 280 Leu Val Lys 290 <210> 6584 <211> 417 <212> PRT <213> Enterobacter cloacae <400> 6584 Ala Gly Arg Ile Asn Met Gly Leu Lys His Leu Phe Glu Lys Ile Glu 10 Pro His Phe Thr Glu Gly Lys Leu Lys Lys Tyr Tyr Pro Leu Tyr Glu 20 25 Ala Thr Thr Ile Phe Tyr Thr Pro Gly Leu Val Thr Lys Gly Ala 35 40 Ala His Val Arg Asp Ala Ile Asp Leu Lys Arg Met Met Ile Leu Val . 55 Trp Phe Ala Val Phe Pro Ala Met Phe Trp Gly Met Tyr Asn Val Gly 70 75 Leu Gln Thr Ile Pro Ala Leu His His Met Tyr Asp Ala Glu Gln Leu . 85 Ala Gln Val Ile Gln Ser Asp Trp His Tyr Arg Leu Ala Gln Ser Leu 100 105 Gly Val Ser Phe Ala Ala Asp Ala Gly Trp Ile Ser Met Met Thr Leu 120 Gly Ala Val Phe Phe Leu Pro Ile Tyr Met Thr Val Phe Ile Val Gly 135 Gly Phe Trp Glu Val Leu Phe Ala Ile Ile Arg Lys His Glu Ile Asn 150 155 Glu Gly Phe Phe Val Thr Ser Ile Leu Phe Ala Leu Ile Val Pro Pro 170 Thr Leu Pro Leu Trp Gln Ala Ala Met Gly Ile Ser Phe Gly Val Val 185 190 Ile Ala Lys Glu Ile Phe Gly Gly Thr Gly Arg Asn Phe Leu Asn Pro 200 205 Ala Leu Ala Gly Arg Ala Phe Leu Phe Phe Ala Tyr Pro Ala Gln Ile 215 220 Ser Gly Asp Leu Val Trp Thr Ala Ala Asp Gly Phe Ser Gly Ala Thr 230 235 Pro Leu Ser Gln Trp Ala Ala Gly Gly Glu Thr Leu Val Asn Asn 245 250 Ala Thr Gly Gln Pro Val Thr Trp Phe Asp Ala Phe Ile Gly Asn Ile 265 Pro Gly Ser Ile Gly Glu Val Ser Thr Leu Met Ile Leu Ile Gly Gly 280 285 Ala Ile Ile Leu Phe Gly Arg Val Ala Ser Trp Arg Ile Val Ala Gly 295 300 Val Met Leu Gly Met Val Leu Thr Ala Thr Leu Phe Asn Phe Ile Gly 310 315 Ser Asp Thr Asn Pro Met Phe Ser Met Pro Trp Tyr Trp His Leu Val 325 330 Leu Gly Gly Phe Ala Phe Gly Met Met Phe Met Ala Thr Asp Pro Val 345 Ser Ala Ser Phe Thr Asp Arg Gly Lys Trp Cys Tyr Gly Ala Leu Ile

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Ala Pro Glu Asp Cys Glu Phe Tyr Met Cys Gly Pro Pro Met Met Asn 375 380 Ala Ala Val Ile Lys Met Leu Lys Asp Leu Gly Val Glu Asp Glu Asn 390 395 Ile Met Leu Asp Asp Phe Gly Gly

<210> 6586 <211> 163 <212> PRT <213> Enterobacter cloacae

405

<400> 6586

Ala Val Tyr Lys Gln Ala Gly Thr Leu His Met Ser Glu Lys Tyr Val 10 Val Thr Trp Asp Met Leu Gln Ile His Ala Arg Lys Leu Ala Ala Arg 20 25 Leu Met Pro Ser Glu Gln Trp Lys Gly Ile Ile Ala Val Ser Arg Gly 40 Gly Leu Val Pro Gly Ala Leu Leu Ala Arg Glu Leu Gly Ile Arg His 55 Val Asp Thr Val Cys Ile Ser Ser Tyr Asp His Asp Asn Gln Arg Glu 75 Leu Lys Val Leu Lys Arg Ala Glu Gly Asp Gly Glu Gly Phe Ile Val 85 90 Ile Asp Asp Leu Val Asp Thr Gly Gly Thr Ala Val Ala Ile Arg Glu 100 105 Met Tyr Pro Lys Ala His Phe Val Thr Ile Phe Ala Lys Pro Ala Gly 120 125 Arg Pro Leu Val Asp Asp Tyr Val Ile Asp Ile Pro Gln Asp Thr Trp 135 140 Ile Glu Gln Pro Trp Asp Met Gly Val Val Phe Val Pro Pro Ile Ser 150 Gly Arg

<210> 6587 <211> 483 <212> PRT <213> Enterobacter cloacae

<400> 6587 Leu Ala Phe Arg Arg Ala Arg Arg Ile Cys Cys Pro Trp Gln Gly Leu Lys Trp Tyr Thr Pro Val Ser Leu Asp Cys Cys Ser Trp Ile Pro 20 25 Ala Asn His Met Phe Arg Ile Arg Lys Gly Leu Asp Leu Pro Ile Ser 40 45 Gly Val Pro Glu Gln His Val Thr Thr Gly Ala Ser Ile His His Val 55 Ala Ile Val Gly Asp Asp Tyr Val Gly Met Arg Pro Ala Met Leu Val 75 70 Gln Glu Gly Asp Arg Val Ile Lys Gly Gln Ala Leu Phe Glu Asp Lys 90 Lys Asn Pro Gly Val Met Phe Thr Ala Pro Ala Ser Gly Thr Val Val 105 110 Ala Ile His Arg Gly Glu Arg Arg Val Leu Gln Ser Val Val Ile Gln 120 125 Ile Glu Gly Asp Glu Lys Arg Glu Phe Ala Arg Phe Asp Ala Ala Asp 135 140

Leu Ala Thr Leu Ser His Asp Val Val Gln Thr Gln Leu Leu Glu Ser

```
150
                                        155
145
Gly Leu Trp Thr Ala Leu Arg Thr Arg Pro Tyr Ser Lys Thr Pro Val
                                  170
               165
Pro Gly Thr Val Pro Ala Ala Ile Phe Val Thr Ala Ile Asp Thr Asn
                               185
           180
                                                    190
Pro Leu Ser Ala Asp Pro Gln Pro Leu Ile Leu Ala Glu Arg Lys Ala
                           200
                                                205
Phe Asp Ala Gly Leu Ala Val Leu Thr Arg Leu Thr Pro Gly Lys Val
                        215
                                            220
His Val Cys Gln Ala Cys Gly Gly Lys Leu Gly Gly His Pro Gln Gly
                    230
                                        235
Gln Val Ala Phe Asn Glu Phe Ala Gly Pro His Pro Ala Gly Leu Val
                                   250
Gly Thr His Ile His Phe Leu Glu Pro Val Ser Leu Thr Lys Gln Val
                                265
Trp His Leu Asn Tyr Gln Asp Val Ile Ala Ile Gly Lys Leu Phe Thr
                            280
Thr Gly Glu Leu Cys Ala Glu Arg Ile Ile Ala Ile Gly Gly Pro Gln
                        295
                                            300
Ala Thr Gln Pro Arg Leu Val Arg Thr Leu Leu Gly Ala Asp Leu Thr
                    310
                                        315
Ala Leu Leu Ala Gly Glu Thr Lys Glu Gly Glu Asn Arg Ile Ile Ser
                325
                                    330
Gly Ser Val Leu Ser Gly Arg His Ala Thr Gly Pro Met Ala Trp Leu
            340
                                345
Gly Arg Phe His Leu Gln Val Ser Val Val Leu Glu Gly Arg Asp Lys
                            360
Glu Leu Phe Gly Trp Val Leu Pro Gly Ala Glu Lys Tyr Ser Val Thr
                                            380
                        375
Arg Thr Thr Leu Gly His Phe Leu Arg His Lys Leu Phe Asn Phe Ser
                    390
                                        395
Thr Ser Thr Asn Gly Gly Glu Arg Ala Met Val Pro Ile Gly Asn Tyr
                405
                                    410
Glu Arg Val Met Pro Leu Asp Ile Leu Pro Thr Val Leu Leu Arg Asp
            420
                                425
Leu Leu Ala Gly Asp Thr Asp Gly Ala Gln Ala Leu Gly Cys Leu Glu
                            440
Leu Asp Glu Glu Asp Leu Ala Leu Cys Thr Tyr Val Cys Pro Gly Lys
                        455
                                            460
Tyr Glu Tyr Gly Pro Val Leu Arg Glu Val Leu Thr Arg Ile Glu Gln
                    470
Glu Gly
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```
<210> 6588
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## <400> 6588

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      Cys
      Trp
      Pro
      Phe
      Cys
      Leu
      Pro
      Ile
      Cys
      Leu
      Arg
      Arg
      Cys
      Ser
      Thr
      Thr
      Thr
      10
      15
      15
      Thr
      Thr
      10
      15
      Thr
      15
      Thr
      Thr
      Arg
      Arg
      Val
      Ala
      Glu
      Ile
      Glu
      Ile
      Arg
      Arg
      Arg
      Val
      Ala
      Glu
      Ile
      Ile
      Arg
      Arg
      Thr
      Leu
      Leu
      Val
      Leu
      Val
      Leu
      Val
      Leu
      Leu
      Val
      Leu
      Val
      Leu
      Leu
      Leu
      Leu
      Val
      Leu
      Arg
      Arg</td
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<sup>&</sup>lt;211> 293

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

90 Ala Val Phe Ala Glu Arg Ile Thr Ala Arg Leu Val Asp Leu Lys Thr 105 Gly Glu Leu Met Asp Lys Asp Pro Ala Lys Tyr Asn Gln Ala Leu Ala 120 125 Leu Lys Asp Pro Gln Met Ser Thr Thr Leu Asp Ala Ser Gln Asp Pro 135 140 Ala Gly Ile Lys Arg Arg Ser Asn Val Ala Glu Ile Tyr Leu Val Arg 150 155 Asp Glu Gln Lys Arg Ile Gln Lys Ile Val Leu Pro Ile Tyr Gly Asn 165 170 Gly Leu Trp Ser Met Met Tyr Ala Phe Val Ala Leu Asp Thr Asp Gly 185 Arg Thr Val Lys Gly Ile Thr Tyr Tyr Asp Gln Gly Glu Thr Pro Gly 200 . Leu Gly Gly Glu Val Glu Asn Pro Asn Trp Arg Ala Gln Phe Val Gly 215 Lys Lys Val Leu Asp Asp Asn Gly Gln Pro Ala Leu Lys Val Val Lys 230 235 Gly Gly Ala Arg Pro Gly Asp Glu Phe Ala Val Asp Gly Leu Ser Gly 250 245 Ala Thr Leu Thr Ser Asn Gly Val Gln His Ser Phe Asp Phe Trp Met 265 Gly Glu Leu Gly Phe Gly Pro Phe Leu Lys Asn Val Arg Glu Gly Ala 280 Leu Asn Asn Gly 290 <210> 6589 <211> 356 <212> PRT

<400> 6589

<213> Enterobacter cloacae

Gly Leu Thr Met Arg Lys Ile Ile His Val Asp Met Asp Cys Phe Phe 10 Ala Ala Val Glu Met Arg Asp Asn Pro Ala Leu Arg Asp Ile Pro Ile 20 25 Ala Ile Gly Gly Ser Arg Val Gln Arg Gly Val Ile Ser Thr Ala Asn 40 Tyr Pro Ala Arg Lys Tyr Gly Val Arg Ser Ala Met Pro Thr Ala Met 55 Ala Leu Lys Leu Cys Pro His Leu Thr Leu Leu Pro Gly Arg Phe Asp 70 Ala Tyr Lys Glu Ala Ser Ser His Ile Arg Glu Ile Phe Ser Arg Tyr 90 Thr Ser Leu Ile Glu Pro Leu Ser Leu Asp Glu Ala Tyr Leu Asp Val 105 Thr His Ser Val His Cys His Gly Ser Ala Thr Leu Met Ala Gln Glu 120 Ile Arg Gln Thr Ile Phe Asn Glu Leu Asn Leu Thr Ala Ser Ala Gly 135 140 Val Ala Pro Val Lys Phe Leu Ala Lys Ile Ala Ser Asp Leu Asn Lys 150 155 Pro Asn Gly Gln Tyr Val Ile Thr Pro Glu Glu Val Ser Ala Phe Leu 165 170 Lys Thr Leu Pro Leu Ser Lys Ile Pro Gly Val Gly Lys Val Ser Ala 185 Ala Lys Leu Glu Ser Met Gly Leu Arg Thr Cys Glu Asp Val Gln Arg 200 Ser Asp Leu Ala Leu Leu Lys Arg Phe Gly Lys Phe Gly Arg Val

<400> 6591

215 220 Leu Trp Glu Arg Ser Gln Gly Ile Asp Asp Arg Asp Val Asn Asn Glu 230 235 Arg Leu Arg Lys Ser Val Gly Val Glu Arg Thr Leu Ser Glu Asp Ile 250 245 His Asp Trp Thr Glu Cys Glu Thr Ile Ile Thr Glu Gln Leu Tyr Pro 265 Glu Leu Glu Arg Arg Leu Leu Lys Val Lys Pro Asp Leu Leu Ile Ala 280 285 Arg Gln Gly Ile Lys Leu Lys Phe Asn Asp Phe Gln Gln Thr Thr Gln 295 300 Glu His Val Trp Pro Arg Leu Asn Lys Glu Asp Leu Ile Ala Thr Ala 310 315 Lys Lys Ala Trp Glu Glu Arg Arg Gly Gly Arg Gly Val Arg Leu Val 330 325 Gly Leu His Val Thr Leu Leu Asp Pro Gln Leu Glu Arg Gln Leu Val 345 Leu Gly Leu 355 <210> 6590 <211> 214 <212> PRT <213> Enterobacter cloacae <400> 6590 Ile Met Ala Asp Thr Gly Glu Leu Lys Glu Val Lys Lys Val Leu Ile Gly Pro Leu Leu Ala Asn Asn Pro Ile Thr Leu Gln Val Leu Gly Val Cys Ser Ala Leu Ala Val Thr Thr Lys Leu Glu Thr Ala Val Val Met `40 Thr Leu Ala Val Thr Leu Val Thr Ala Phe Ser Ser Met Phe Ile Ser 55 Met Ile Arg His His Ile Pro Asn Ser Val Arg Ile Ile Val Gln Met 70 75 Ala Ile Ile Ala Ser Leu Val Ile Val Val Asp Gln Leu Leu Arg Ala 85 Phe Ala Tyr Glu Thr Ser Lys Gln Leu Ser Val Phe Val Gly Leu Ile 105 100 110 Ile Thr Asn Cys Ile Val Met Gly Arg Ala Glu Ala Tyr Ala Met Lys 115 120 125 Met Pro Pro Leu Ala Ser Phe Met Asp Gly Ile Gly Asn Gly Leu Gly 135 140 Tyr Gly Val Ile Leu Leu Thr Val Gly Phe Leu Arg Glu Leu Ile Gly 150 155 Ser Gly Lys Leu Phe Gly Ile Pro Val Leu Asp Thr Val Gln Asn Gly 165 170 Gly Trp Tyr Leu Pro Asn Gly Leu Phe Leu Leu Ala Pro Ser Ala Phe 185 190 Phe Ile Ile Gly Leu Leu Ile Trp Leu Ile Arg Thr Leu Lys Pro Glu 195 200 Gln Gln Glu Lys Glu 210 <210> 6591 <211> 201 <212> PRT <213> Enterobacter cloacae

```
Pro Thr Met Ala His Tyr Leu Ser Leu Phe Val Arg Ala Val Phe Val
Glu Asn Met Ala Leu Ala Phe Phe Leu Gly Met Cys Thr Phe Leu Ala
                                25
Val Ser Lys Lys Val Ser Thr Ala Phe Gly Leu Gly Val Ala Val Thr
Val Val Leu Gly Leu Ser Val Pro Ile Asn Asn Leu Val Phe Asn Phe
Val Leu Arg Asp Gly Ala Leu Val Glu Gly Val Asp Leu Ser Phe Leu
Asn Phe Ile Thr Phe Ile Gly Val Ile Ala Ala Leu Val Gln Ile Leu
                                     90
Glu Met Ile Leu Asp Lys Tyr Phe Pro Ser Leu Tyr Asn Ala Leu Gly
                                105
Ile Phe Leu Pro Leu Ile Ala Val Asn Cys Ala Ile Phe Gly Gly Val
                            120
Ser Phe Met Val Gln Arg Asp Tyr Asn Phe Ser Glu Ser Val Val Tyr
                        135
Gly Phe Gly Ser Gly Ile Gly Trp Met Leu Ala Ile Val Thr Met Ala
                                        155
Gly Ile Arg Glu Lys Met Lys Tyr Ala Asn Val Pro Ala Gly Leu Arg
                165
                                    170
Gly Leu Gly Ile Thr Phe Ile Thr Thr Gly Leu Met Ala Leu Gly Phe
                                185
Met Ser Phe Ser Gly Val Gln Leu
<210> 6592
<211> 72
<212> PRT
<213> Enterobacter cloacae
<400> 6592
Phe Arg Arg Leu Ile Met Leu Thr Phe Leu Ala Thr Phe Ala Val Phe
                                    10
Val Leu Val Ile Phe Gly Met Ser Leu Gly Trp Ile Ile Lys Arg Lys
Ser Ile Gln Gly Ser Cys Gly Gly Ile Ser Ser Ile Gly Met Glu Lys
                            40
Val Cys Asp Cys Pro Glu Pro Cys Asp Ala Arg Lys Lys Arg Met Ala
Arg Glu Gln Gln Arg Ile Ile
<210> 6593
<211> 186
<212> PRT
<213> Enterobacter cloacae
<400> 6593
Pro Ala Thr Leu Phe Cys Ser Ala Ser Thr Arg Arg Pro Ile Val Ser
                                    10
Glu Leu Ser Gln Leu Ser Pro Gln Pro Leu Trp Asp Ile Phe Ala Lys
Ile Cys Ser Ile Pro His Pro Ser Tyr His Glu Glu Gln Leu Ala Glu
His Ile Met Gly Trp Ala Lys Glu Lys Gly Leu His Ala Glu Arg Asp
Gln Val Gly Asn Ile Leu Ile Arg Lys Pro Ala Thr Ala Gly Met Glu
```

Asn Arg Lys Pro Val Val Leu Gln Ala His Leu Asp Met Val Pro Gln

90 Lys Asn Asn Asp Thr Val His Asp Phe Thr Lys Asp Pro Ile Gln Pro 105 Tyr Ile Asp Gly Glu Trp Val Lys Ala Arg Gly Thr Thr Leu Gly Ala 120 Asp Asn Gly Ile Gly Met Ala Ser Ala Leu Ala Val Leu Ala Asp Asp 135 140 Ser Val Glu His Gly Pro Leu Glu Val Leu Thr Met Thr Glu Glu 155 150 Ala Gly Met Asp Gly Ala Phe Gly Leu His Ala Asn Trp Leu Gln Ala 170 165 Asp Ile Leu Ile Asn Thr Asp Ser Glu 180 <210> 6594

<210> 6594 <211> 314

<212> PRT

<213> Enterobacter cloacae

<400> 6594 Gln Gly Glu Ile Tyr Met Gly Cys Ala Gly Gly Ile Asp Phe Ile Ser Thr Leu Pro Leu Ser Arg Glu Ala Ile Pro Ala Gly Phe Glu Thr Phe Lys Leu Thr Leu Lys Gly Leu Lys Gly Gly His Ser Gly Gly Asp Ile His Leu Gly Leu Gly Asn Ala Asn Lys Leu Leu Ala Arg Phe Leu Ala Gly His Ala Ala Glu Leu Asp Leu Arg Leu Val Asp Phe Asn Gly Gly Thr Leu Arg Asn Ala Ile Pro Arg Glu Ala Phe Ala Thr Leu Ala Val 90 Pro Ala Ser Lys Ala Asp Glu Leu Lys Asn Leu Ser Ser Val Tyr Leu 105 Glu Ile Leu Lys Asn Glu Leu Ser Ala Lys Glu Lys Asn Leu Thr Val 120 Val Leu Glu Ser Val Thr Thr Asp Lys Ala Ala Leu Thr Ala Gln Ser 135 140 Arg Asp Thr Phe Val Gln Leu Leu Asn Ala Thr Pro Asn Gly Val Ile 150 155 Arg Asn Ser Asp Val Ala Lys Gly Val Val Glu Thr Ser Leu Asn Val 170 165 Gly Val Val Thr Met Gly Asp Asp Ser Ala Glu Ile Ile Cys Leu Ile 180 185 190 Arg Ser Leu Ile Asp Ser Gly Lys Glu Tyr Val Val Ser Met Leu Glu 200 Ser Leu Gly Thr Leu Ala Gly Ala Lys Thr Ser Ala Lys Gly Ser Tyr 215 220 Pro Gly Trp Gln Pro Asp Ala Ser Ser Pro Val Met Ala Leu Val Arg 230 235 Glu Thr Tyr Gln Arg Leu Phe Asn Ser Thr Pro Asn Ile Gln Val Ile 250 His Ala Gly Leu Glu Cys Gly Leu Phe Lys Lys Pro Tyr Pro Asp Met 265 Asp Met Val Ser Ile Gly Pro Thr Ile Thr Gly Pro His Ser Pro Asp 280 Glu Gln Val His Ile Glu Ser Val Gly His Tyr Trp Thr Leu Leu Thr

295

Glu Leu Leu Lys Ala Ile Pro Ala Lys

```
<210> 6595
<211> 567
<212> PRT
<213> Enterobacter cloacae
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<400> 6595 Tyr Cys Leu Arg Gly Cys Pro Ala Pro Val Val Lys Thr Ile Glu Gln 10 Met Arg Leu Ser Ala Thr Lys Ala Leu Leu Glu Arg Arg Asp Val Val 25 Val Val Ala Ser Val Ser Ala Ile Tyr Gly Leu Gly Asp Pro Asp Leu Tyr Leu Lys Met Met Leu His Leu Thr Gln Gly Met Ile Ile Asp Gln 55 Arg Ala Ile Leu Arg Arg Leu Ala Glu Leu Gln Tyr Thr Arg Asn Asp 70 75 Gln Ala Phe Gln Arg Gly Thr Phe Arg Val Arg Gly Glu Val Ile Asp 90 . 85 Ile Phe Pro Ala Glu Ser Asp Asp Met Ala Leu Arg Val Glu Leu Phe 105 100 Asp Glu Glu Val Glu Arg Leu Ser Leu Phe Asp Pro Leu Thr Gly His 120 Val Glu Ser Val Ile Gln Arg Phe Thr Ile Tyr Pro Lys Thr His Tyr 135 140 Val Thr Pro Arg Glu Arg Ile Val Gln Ala Met Glu Glu Ile Lys Ile 155 150 Glu Leu Ala Asp Arg Arg Lys Val Leu Leu Ala Asn Asn Lys Leu Leu 165 170 Glu Glu Gln Arg Leu Ser Gln Arg Thr Gln Phe Asp Leu Glu Met Met 180 185 Asn Glu Leu Gly Tyr Cys Ser Gly Ile Glu Asn Tyr Ser Arg Tyr Leu 200 205 Ser Gly Arg Gly Pro Gly Glu Ala Pro Pro Thr Leu Phe Asp Tyr Leu 215 220 Pro Ala Asp Gly Leu Leu Val Ile Asp Glu Ser His Val Thr Ile Pro 230 235 Gln Ile Gly Gly Met Tyr Arg Gly Asp Arg Ala Arg Lys Glu Thr Leu 245 250 Val Glu Tyr Gly Phe Arg Leu Pro Ser Ala Leu Asp Asn Arg Pro Met 260 265 270 Lys Phe Glu Glu Phe Glu Ala Leu Ala Pro Gln Thr Ile Tyr Val Ser 280 Ala Thr Pro Gly Asn Tyr Glu Leu Glu Lys Ser Gly Asp Asp Val Val 300 295 Asp Gln Val Val Arg Pro Thr Gly Leu Leu Asp Pro Ile Ile Glu Val 310 315 Arg Pro Val Ala Thr Gln Val Asp Asp Leu Leu Ser Glu Ile Arg Ala 325 330 Arg Ser Ala Ile Asn Glu Arg Val Leu Val Thr Thr Leu Thr Lys Arg 345 Met Ala Glu Asp Leu Thr Glu Tyr Leu Glu Glu His Gly Glu Lys Val 360 365 Arg Tyr Leu His Ser Asp Ile Asp Thr Val Glu Arg Met Glu Ile Ile 370 375 380 Arg Asp Leu Arg Leu Gly Glu Phe Asp Val Leu Val Gly Ile Asn Leu 390 395 Leu Arg Glu Gly Leu Asp Met Pro Glu Val Ser Leu Val Ala Ile Leu 405 410 Asp Ala Asp Lys Glu Gly Phe Leu Arg Ser Glu Arg Ser Leu Ile Gln 425 Thr Ile Gly Arg Ala Ala Arg Asn Val Asn Gly Lys Ala Ile Leu Tyr

440 Gly Asp Lys Ile Thr Pro Ser Met Ala Lys Ala Ile Gly Glu Thr Glu 455 460 Arg Arg Arg Glu Lys Gln Gln Arg Tyr Asn Glu Glu His Gly Ile Thr 470 475 Pro Gln Gly Leu Asn Lys Lys Val Val Asp Ile Leu Ala Leu Gly Gln 490 485 Asn Ile Ala Lys Thr Lys Ala Lys Gly Arg Gly Lys Ala Arg Ser Val 510 505 500 Val Glu Glu Asp Thr Val Ala Leu Thr Pro Lys Ala Leu Gln Gln Lys 520 525 Ile His Glu Leu Glu Gly Gln Met Met Gln His Ala Gln Asn Leu Glu 535 540 Phe Glu Glu Ala Ala Gln Ile Arg Asp Gln Leu His Gln Leu Arg Asp 550 . 555 Leu Phe Ile Ala Ala Ser

<210> 6596 <211> 84 <212> PRT

<213> Enterobacter cloacae

<210> 6597 <211> 148 <212> PRT <213> Enterobacter cloacae

<400> 6597

Ile Ser Arq Glu Lys Ser Phe Arg Arg Glu Ala Met Lys Trp Gln Gln 10 Arg Val Arg Val Ala Thr Gly Leu Ser Cys Trp Gln Ile Met Leu His Leu Leu Val Val Ala Val Leu Val Met Gly Trp Met Ser Gly Thr Leu Val Arg Val Gly Leu Gly Leu Cys Val Val Tyr Gly Val Thr Val Leu Ser Met Leu Phe Leu Gln Arg His His Asp Ala Arg Trp Arg Glu Val 70 Gly Asp Val Leu Glu Glu Leu Thr Thr Trp Tyr Phe Gly Ala Ala 90 Met Ile Val Leu Trp Leu Leu Ser Arg Val Leu Gln Asn Asn Leu Leu 100 105 Leu Ala Leu Ala Gly Leu Ala Ile Leu Ala Gly Pro Ala Val Val Ser 120 125 Leu Leu Thr Lys Glu Lys Lys Leu Arg Asp Val Ser Ser Lys His Arg

```
Ile Gly His
145
<210> 6598
<211> 171
<212> PRT
<213> Enterobacter cloacae
<400> 6598
Pro Thr Arg Trp Pro Met Gly Thr Lys Trp Pro Ser Ser Arg Arg Ser
                                    10
Gln Gly Val Lys Met Thr Glu Thr Arg Ile Leu Val Gly Pro Glu Arg
            20
                                25
Phe Ser Val Gly Thr Glu Tyr Ser Trp Leu Ala Glu Arg Asp Glu Asp
                                                 45
Gly Ala Val Val Thr Phe Thr Gly Lys Val Arg Asn His Asn Leu Gly
                        55
Asp Ser Val Lys Ala Leu Thr Leu Glu His Tyr Pro Gly Met Thr Glu
                                         75
                    70
Lys Ser Leu Ala Ala Ile Val Glu Glu Ala Arg Gly Arg Trp Pro Leu
                                     90
Gly Arg Val Thr Val Ile His Arg Ile Gly Glu Met Trp Pro Gly Glu
                                105
Glu Ile Val Phe Val Gly Val Thr Ser Ala His Arg Gly Ser Ala Phe
                            120
Ala Ala Gly Glu Phe Ile Met Asp Tyr Leu Lys Thr Lys Ala Pro Phe
                        135
Trp Lys Arg Glu Ala Thr Pro Glu Gly Glu Arg Trp Val Glu Ser Arg
                    150
Asp Ser Asp Lys His Ala Ala Ser Arg Trp
<210> 6599
<211> 404
<212> PRT
<213> Enterobacter cloacae
<400> 6599
Lys Cys Thr Ile Thr Ser Leu Cys Ile Asn Leu Tyr Ser Glu Lys Arg
Gln Trp Arg Ser Gly Asp Phe His Ala Thr Ile Ala Ile Thr Thr Phe
                                25
Ser Lys Leu Lys Thr Tyr Thr Leu Ala Leu Ala Pro Val Ser Arg Asp
                            40
                                                 45
Met Ala Pro Trp Pro Trp Arg Ile Cys His Gln Gly Thr Glu Arg Asn
                        55
                                             60
Asp Cys Ala Ser Arg Ser Gly Lys Val Tyr Met Ala Ser Gln Leu Thr
                    70
                                        7.5
Asp Ala Phe Ala Arg Lys Phe Tyr Tyr Leu Arg Leu Ser Ile Thr Asp
                85
                                    90
Val Cys Asn Phe Arg Cys Thr Tyr Cys Leu Pro Asp Gly Tyr Lys Pro
                                105
                                                     110
Gly Ser Val Thr Asn Asn Gly Phe Leu Ser Val Asp Glu Val Arg Arg
                            120
Val Thr Arg Ala Phe Ser Glu Leu Gly Thr Glu Lys Val Arg Leu Thr
                        135
Gly Gly Glu Pro Ser Leu Arg Arg Asp Phe Pro Asp Ile Ile Ala Ala
                    150
                                        155
Val Arg Glu Asn Glu Arg Ile Arg Gln Ile Ala Val Thr Thr Asn Gly
```

Tyr Arg Met Ala Arg Asp Val Ala Asn Trp Arg Asp Ala Gly Leu Thr

```
185
Ala Ile Asn Val Ser Val Asp Ser Leu Asp Ala Arg Gln Phe His Ala
                            200
Ile Thr Gly Gln Asp Lys Phe Arg Gln Val Met Asp Gly Ile Asp Ala
                        215
                                             220
Ala Phe Thr Ala Gly Phe Glu Lys Val Lys Val Asn Thr Val Leu Met
                    230
                                        235
Arg Asp Val Asn His His Gln Leu Asp Thr Phe Leu Ala Trp Ile Lys
                245
                                    250
Ser Arg Pro Ile Gln Leu Arg Phe Ile Glu Leu Met Glu Thr Gly Glu
                                265
            260
Gly Ser Glu Leu Phe Arg Arg His His Ile Ser Gly Met Val Leu Arg
                            280
                                                 285
Asp Glu Leu Leu Lys Arg Gly Trp Ile His Gln Ile Arg Gln Arg Ser
                        295
                                             300
Asp Gly Pro Ala Gln Val Phe Cys His Pro Asp Tyr Glu Gly Glu Ile
                    310
                                         315
Gly Leu Ile Met Pro Tyr Glu Lys Asp Phe Cys Ala Ser Cys Asn Arg
                                    330
                325
Leu Arg Val Ser Ser Val Gly Lys Leu His Leu Cys Leu Phe Gly Asp
            340
                                345
Gly Gly Val Asp Leu Arg Asp Leu Leu Glu Asp Asp Ala Gln Gln Asp
                            360
Ala Leu Glu Ala Arg Ile Ser Glu Ala Leu Thr His Lys Lys Gln Thr
                        375
His Phe Leu His Gln Gly Asn Thr Gly Ile Thr Gln Asn Leu Ser Tyr
                    390
Ile Gly Gly
```

<210> 6600

<211> 179

<212> PRT

<213> Enterobacter cloacae

<400> 6600

Ser Gly Phe Arg Arg Asn Gln Lys Met Ser Gln Val Ser Ala Glu Phe 10 Ile Pro Thr Arg Ile Ala Ile Leu Thr Val Ser Glu Arg Arg Gly Glu 20 25 Glu Asp Asp Thr Ser Gly His Trp Leu Arg Glu Ala Ala His Glu Ala 40 Gly His Gln Ile Val Asp Lys Ala Ile Val Lys Glu Asn Arg Tyr Ala 55 Ile Arg Ala Gln Val Ser Gln Trp Ile Ala Asn Asp Asp Val Gln Val 70 75 Val Leu Ile Thr Gly Gly Thr Gly Phe Thr Ala Gly Asp Gln Ala Pro 85 90 Glu Ala Leu Leu Pro Leu Phe Asp Arg Glu Val Glu Gly Phe Gly Glu 100 105 110 Val Phe Arg Met Leu Ser Phe Glu Glu Ile Gly Thr Ser Thr Leu Gln 120 125 Ser Arg Ala Val Ala Gly Val Ala Asn Lys Thr Leu Ile Phe Ala Met 135 Pro Gly Ser Thr Lys Ala Cys Arg Thr Ala Trp Glu Asn Ile Ile Ala 150 155 Pro Gln Leu Asp Ala Arg Thr Arg Pro Cys Asn Phe His Pro His Leu 165 Lys Lys

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<210> 6601
<211> 163
<212> PRT
<213> Enterobacter cloacae
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<400> 6601 Ala Met Ser Gln Leu Thr His Ile Asn Ala Ala Gly Glu Ala His Met 10 Val Asp Val Ser Ala Lys Ala Glu Thr Val Arg Glu Ala Arg Ala Glu 25 Ala Phe Ile Thr Met Leu Pro Glu Thr Leu Ala Met Ile Ile Asp Gly 40 Ser His His Lys Gly Asp Val Phe Ala Thr Ala Arg Ile Ala Gly Ile 55 Gln Ala Ala Lys Arg Thr Trp Asp Leu Ile Pro Leu Cys His Pro Leu 70 75 Met Leu Ser Lys Val Glu Val Asn Leu Gln Ala Gln Pro Ala His Asn 90 Arg Val Arg Ile Glu Ser Leu Cys Arg Leu Thr Gly Lys Thr Gly Val 105 Glu Met Glu Ala Leu Thr Ala Ala Ser Val Ala Ala Leu Thr Ile Tyr 120 Asp Met Cys Lys Ala Val Gln Lys Asp Met Val Ile Gly Pro Val Arg 135 Leu Leu Ala Lys Ser Gly Gly Lys Ser Gly Asp Phe Lys Val Glu Ser 150 155 His Asp

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<210> 6602
<211> 237
<212> PRT
<213> Enterobacter cloacae
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## <400> 6602

Ile Met Asp Arg Phe Pro Arg Ser Asp Ser Ile Val Gln Gln Thr Arg 10 Ser Gly Leu Gln Thr Tyr Met Ala Gln Val Tyr Gly Trp Met Thr Val 25 Gly Leu Leu Thr Ala Phe Ile Ala Trp Tyr Ala Ala Asn Thr Pro 40 Glu Leu Met Met Phe Ile Phe Ser Ser Lys Ile Thr Phe Phe Gly Leu Ile Ile Ala Gln Leu Ala Leu Val Phe Val Leu Ser Gly Leu Val His 70 75 Lys Leu Ser Ser Gly Met Ala Thr Thr Leu Phe Met Leu Tyr Ser Ala 85 90 Leu Thr Gly Leu Thr Leu Ser Ser Ile Phe Ile Val Tyr Thr Tyr Ser 105 Ser Ile Ala Ser Thr Phe Val Val Thr Gly Gly Met Phe Gly Val Met 120 Ser Leu Tyr Gly Tyr Thr Thr Lys Arg Asp Leu Ser Gly Phe Gly Asn Met Leu Phe Met Gly Leu Ile Gly Ile Val Leu Ala Ser Leu Val Asn 150 Leu Trp Leu Lys Ser Asp Ala Leu Met Trp Ala Val Thr Tyr Ile Gly 170 165 Val Val Ile Phe Val Gly Leu Thr Ala Tyr Asp Thr Gln Lys Leu Lys 185 Asn Ile Gly Glu Gln Ile Asp Val Arg Asp Ser Ser Asn Leu Arg Lys 200

Tyr Ser Ile Leu Gly Ala Leu Thr Leu Tyr Leu Asp Phe Ile Asn Leu 210 215 220

Phe Leu Met Leu Leu Arg Ile Phe Gly Asn Arg Arg 225 230 235

<210> 6603

<211> 432

<212> PRT

<213> Enterobacter cloacae

<400> 6603

Lys Ala Arg Gly Pro Asn Phe Pro Arg Gly Glu Asn Phe Gly Gly Gln Val Ala Asn Pro Phe Ser Gly Gly Glu Phe Pro Gly Gly Ala Asp 20 25 Phe Gln Thr Arg Cys Phe Lys Gly Val Gly Arg Gly Ser Leu Phe Gly 40 Trp Glu Gly Gly Glu Thr His Thr Gly Gly Trp Ile Arg Gly Arg Ala 55 Phe Phe Arg Gly Tyr Gly Pro Leu Ile Ala Lys Gly Arg Gln Ser Met 70 75 Val Arg Glu Arg Arg Thr Arg Ala Ile Met Gly Leu Pro Val Leu Val 85 90 Pro Val Val Leu Phe Arg Phe Ala Pro Thr Val Glu Val Thr Thr Ala 105 100 Thr Phe Ala Ile Tyr Asn Glu Asp Asn Gly Lys His Ser Val Glu Leu 120 125 Thr Gln Arg Phe Ala Arg Ala Lys Ala Phe Thr His Val Leu Leu 135 140 Gln Ser Pro Gln Ala Ile Gln Pro Thr Ile Asp Thr Gln Lys Ala Leu 150 155 Leu Leu Val Arg Phe Pro Ala Asp Phe Ser Arg Asn Leu Asp Thr Phe . 165 170 Gln Thr Ala Pro Met Gln Leu Ile Leu Asp Gly Arg Asn Ser Asn Ser 180 185 Ala Gln Ile Ala Ala Asn Tyr Leu Gln Gln Val Val Lys Asp Tyr Gln 200 Gln Glu Leu Met Asp Gly Lys Pro Lys Pro Asn Asn Ser Glu Leu Val 215 Val Arg Asn Trp Tyr Asn Pro Asn Leu Asp Tyr Lys Trp Phe Val Val 230 235 Pro Ser Leu Ile Ala Met Ile Thr Thr Ile Gly Val Met Ile Val Thr 250 Ser Leu Ser Val Ala Arg Glu Arg Glu Gln Gly Thr Leu Asp Gln Leu 265 Leu Val Ser Pro Leu Ala Thr Trp Gln Ile Phe Val Gly Lys Ala Val 280 285 Pro Ala Leu Ile Val Ala Thr Phe Gln Ala Thr Ile Val Leu Gly Val 295 300 Gly Ile Trp Ala Tyr Gln Ile Pro Phe Ala Gly Ser Leu Ala Leu Phe 315 310 Tyr Phe Thr Met Val Ile Tyr Gly Leu Ser Leu Val Gly Phe Gly Leu 325 330 Leu Ile Ser Ala Leu Cys Ser Thr Gln Gln Ala Phe Ile Gly Val 345 Phe Val Phe Met Met Pro Ala Ile Leu Leu Ser Gly Tyr Val Ser Pro 360 365 Val Glu Asn Met Pro Val Trp Leu Gln Asp Leu Thr Trp Ile Asn Pro 375 380 Ile Arg His Phe Thr Asp Ile Thr Lys Gln Ile Tyr Leu Lys Asp Ala

395

Ser Leu Asp Ile Val Trp Gly Ser Leu Trp Pro Leu Leu Val Ile Ala 410 Ala Thr Thr Gly Ser Val Ala Tyr Ala Met Phe Arg Arg Asn Ile Ala

<210> 6604 <211> 385

<212> PRT <213> Enterobacter cloacae

<400> 6604

Val His Gly Ala Glu Thr Glu Leu Val Glu Arg Gly His Arg Arg Gly 10 Gly Val Pro Leu Pro Ala Pro Leu Pro Gly His Gly Gly Leu Ala Ala 20 Arg Ala Tyr Ala Glu Thr Gly Ala Gly Gly Ser Ala Cys Ala Thr Arg 40 Asn Gly Asn Pro Gly Pro Arg Arg Gly Gly Arg Trp Arg Glu Asn Leu 55 Met Ser Lys Ser His Pro Arg Trp Arg Leu Ala Lys Lys Ile Leu Thr 70 75 Trp Leu Phe Phe Ile Ala Val Ala Val Leu Leu Val Val Tyr Ala Gln Lys Val Asp Trp Glu Glu Val Trp Lys Val Ile Arg Asn Tyr Asn Arg 105 Thr Val Leu Leu Gly Ala Val Gly Leu Val Ile Val Ser Tyr Leu Met 120 125 Tyr Gly Cys Tyr Asp Leu Leu Gly Arg Ala Tyr Cys Gly His Lys Leu 135 Ala Lys Arg Gln Val Met Leu Val Ser Phe Ile Cys Tyr Ala Phe Asn 150 155 Leu Thr Leu Ser Thr Trp Val Gly Gly Ile Gly Met Arg Tyr Arg Leu 165 170 175 Tyr Ser Arg Leu Gly Leu Pro Gly Gly Thr Ile Thr Arg Ile Phe Ser 185 Leu Ser Ile Thr Thr Asn Trp Leu Gly Tyr Ile Leu Leu Gly Gly Val 200 Ile Phe Thr Ile Gly Val Val Gln Leu Pro Ala His Trp Tyr Ile Asp 215 220 Glu Ala Thr Leu Arg Ile Leu Gly Ile Val Leu Leu Ile Ile Ala 230 235 Ala Tyr Leu Trp Ala Cys Ala Phe Ala Lys Arg Arg His Met Thr Ile 245 250 Lys Gly Gln Lys Leu Val Leu Pro Ser Trp Lys Phe Ala Val Leu Gln 265 260 270 Met Val Val Ser Ser Ala Asn Trp Met Ala Met Gly Ala Ile Ile Trp 280 285 Leu Leu Ile Gly Glu Asp Val Asn Tyr Phe Phe Val Leu Gly Val Leu 295 300 Leu Val Ser Ser Ile Ala Gly Val Ile Val His Ile Pro Ala Gly Ile 310 315 Gly Val Leu Glu Ala Val Phe Ile Ala Leu Leu Ala Gly Glu His Val 330 Ser His Gly Thr Ile Ile Ala Ala Leu Leu Ala Tyr Arg Met Ile Tyr 345 Tyr Phe Leu Pro Leu Ala Leu Ala Thr Val Cys Tyr Leu Val Leu Glu 360 365 Ser Arg Ala Lys Lys Leu Arg Ala Lys Asn Glu Lys Ala Met Ala Lys

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<210> 6605
<211> 306
<212> PRT
<213> Enterobacter cloacae
<400> 6605
Gly Ile Gly Met Arg Asn Arg Thr Phe Ala Asp Leu Asp Arg Val Val
Ala Leu Gly Gly Gly His Gly Leu Gly Arg Val Met Ser Ser Leu Ser
            20
                                25
Ser Leu Gly Ser Arg Leu Thr Gly Ile Val Thr Thr Asp Asn Gly
        35
                            40
Gly Ser Thr Gly Arg Ile Arg Arg Ala Glu Gly Gly Ile Ala Trp Gly
                        55
                                            60
Asp Met Arg Asn Cys Leu Asn Gln Leu Ile Thr Glu Pro Ser Val Ala
                    70
Ser Ala Met Phe Glu Tyr Arg Phe Gly Gly Asn Gly Glu Leu Ser Gly
                                    90
His Asn Leu Gly Asn Leu Met Leu Lys Ala Leu Asp His Leu Ser Val
            100
                                105
Arg Pro Leu Glu Ala Ile Asn Leu Ile Arg Asn Leu Leu Lys Val Asp
                            120
Ala Phe Leu Ile Pro Met Ser Glu Gln Pro Val Asp Leu Met Ala Ile
                        135
                                            140
Asp Ala Asp Asp His Glu Val Tyr Gly Glu Val Asn Ile Asp Gln Leu
Leu Leu Pro Pro Lys Glu Leu Met Thr Tyr Pro Ser Val Pro Ala Thr
                165
                                    170
Arg Glu Ala Val Glu Ala Ile Gly Glu Ala Asp Leu Ile Leu Ile Gly
                                185
Pro Gly Ser Phe Tyr Thr Ser Leu Met Pro Ile Leu Leu Val Lys Glu
                            200
Leu Ala Gln Ala Leu Arg Arg Thr Pro Ala Pro Met Val Tyr Ile Gly
                        215
                                            220
Asn Leu Gly Arg Glu Leu Ser Pro Ala Ala Ala Ser Leu Ser Leu Ala
                    230
Asp Lys Leu Asp Leu Met Glu Gln Tyr Val Gly Lys Lys Ile Ile Asp
                245
                                    250
Gly Val Val Gly Pro Lys Val Asp Val Ser Gly Ile Gly Asp Arg
                                265
Val Val Gln Glu Pro Leu Glu Ala Ser Asp Ile Lys Tyr Arg His
                            280
Asp Arg His Leu Leu Arg Glu Ala Leu Glu Lys Ala Ile Gln Ala Leu
                        295
Gly
305
<210> 6606
<211> 102
<212> PRT
<213> Enterobacter cloacae
<400> 6606
Ser Pro Arg Lys Val Phe Met Ser Lys Lys Thr Gln His Phe Ser Leu
Lys Val Leu Thr Ile Asn Ile His Lys Gly Phe Thr Ala Phe Asn Arg
Arg Phe Ile Leu Pro Glu Leu Arg Asp Ala Val Arg Thr Val Ser Ala
Asp Ile Val Cys Leu Gln Glu Val Met Gly Ala His Glu Val His Pro
```

50 55 60

Met His Phe Glu Asn Trp Pro Asp Thr Pro His Tyr Glu Phe Leu Ala 65 70 75 80

Asp Thr Met Trp Ser Asp Tyr Ala Tyr Gly Arg Asn Ala Val Tyr Pro 85 90 95

Glu Gly Ala Ser Arg 100

<210> 6607 <211> 448 <212> PRT

<213> Enterobacter cloacae

<400> 6607 Pro His Leu Arg Lys Lys Cys Pro Arg Gln Gln Pro Asp Gly Ala Gly Phe Thr Gln Leu Ala Thr Ser Leu Arg Pro Cys Pro Thr Gln Arg Gly Asp Pro Leu Met Lys Cys Thr Trp Gln Glu Gly Asn Arg Ile Thr Leu 40 Leu Glu Asn Gly Asp Asn Tyr Tyr Pro Ala Val Phe Glu Ala Ile Ser 55 His Ala Gln Gln Lys Val Phe Leu Glu Thr Phe Ile Trp Phe Glu Asp 70 Asp Val Gly Arg Gln Leu His Ser Ala Leu Leu His Ala Ala Arg Arg 90 Gly Ile Lys Ile Glu Val Leu Leu Asp Gly Tyr Gly Ser Pro Asp Leu 100 105 Ser Asp Glu Phe Val Asn Glu Leu Thr Ala Ala Gly Val Val Phe Arg 120 Tyr Tyr Asp Pro Gly Pro Arg Leu Phe Gly Met Arg Thr Asn Leu Phe 135 140 Arg Arg Met His Arg Lys Ile Val Val Val Asp Glu Thr Val Ala Phe 150 155 Val Gly Gly Ile Asn Tyr Ser Ala Glu His Met Ser Asp Tyr Gly Pro 170 175 Glu Ala Lys Gln Asp Tyr Ala Ile Arq Ile Glu Gly Pro Val Val Gln 185 Asp Ile Gln Leu Phe Val Leu Glu Asn Leu Pro Gly Lys Glu Ala Ala 200 Arg Arg Trp Trp Arg Arg His Arg Pro Glu Glu Asn Arg Lys Pro 215 Gly Glu Ala Gln Ala Leu Phe Val Trp Arg Asp Asn Glu Glu His Arg 230 235 Asp Asp Ile Glu Arg His Tyr Leu Lys Met Leu Ala Asn Ala Lys Arg 245 250 Glu Val Ile Ile Ala Asn Ala Tyr Phe Phe Pro Gly Tyr Arg Ile Leu 265 His Ala Met Arg Asn Ala Ala Arg Arg Gly Val Ser Val Lys Leu Ile 280 Val Gln Gly Glu Pro Asp Met Pro Ile Val Lys Val Gly Ala Arg Leu 295 300 Leu Tyr Arg Tyr Leu Val Lys Ser Gly Val Gln Ile Tyr Glu Tyr Arg 310 315 Arg Arg Pro Leu His Gly Lys Val Ala Val Met Asp Asp His Trp Ala 325 330 Thr Val Gly Ser Ser Asn Leu Asp Pro Leu Ser Leu Ser Leu Asn Leu

340 345 350

Glu Ala Asn Leu Ile Ile His Asp Arg Gln Phe Asn His Thr Leu Arg
355 360 365

Asp Asn Leu Gln Gly Leu Ile Asn Lys Asp Cys Val Arg Val Asp Glu

380 375 Ser Met Val Pro Lys Arg Ser Trp Trp Asn Val Gly Ile Gly Val Val 390 395 Val Phe His Phe Leu Arg His Phe Pro Ala Met Val Gly Trp Leu Pro 405 410 Ala His Thr Pro Lys Leu Ala Leu Val Asp Pro Pro Val Gln Pro Glu 425 Met Glu Thr Gln Asp Arg Val Glu Ala Glu Asp Gly Gly Lys Thr <210> 6608 <211> 239 <212> PRT <213> Enterobacter cloacae <400> 6608 Thr Phe Ile Arg Ala Ser Gln His Leu Thr Ala Ala Ser Phe Tyr Arg 10 Ser Cys Ala Thr Arg Tyr Ala Pro Ser Ala Pro Ile Leu Ser Ala Ser 20 2.5 Arg Arg Ser Trp Ala Arg Met Lys Cys Thr Arg Cys Ile Ser Lys Thr 40 Gly Pro Thr Arg Pro Thr Thr Ser Phe Trp Arg Ile Pro Cys Gly Ala 55 Ile Thr Pro Thr Gly Ala Met Arg Ser Thr Arg Arg Gly His His Gly 70 75 Asn Ala Val Leu Ser Arg Phe Pro Ile Glu His Tyr Glu Asn Arg Asp 85 90 Val Ser Val Gly Glu Ser Glu Lys Arg Gly Leu Leu Tyr Cys Arg Ile 100 105 110 Thr Pro Pro Glu Leu Asp Phe Pro Ile His Val Gly Cys Val His Leu 120 125 Gly Leu Arg Glu Ala His Arg Gln Ala Gln Leu Gln Met Leu Ala Asp 135 140 Trp Thr Asn Ala Leu Pro Glu Gly Glu Pro Val Val Ala Gly Asp 150 155 Phe Asn Asp Trp Arg Gln Arg Ala Asn His Pro Leu Lys Val Asn Ala 165 170 Gly Leu Glu Glu Ile Phe Thr Arg Ala Arg Gly Arg Pro Ala Arg Thr 180 185 Phe Pro Val Arg Phe Pro Leu Leu Arg Leu Asp Arg Ile Tyr Val Lys 200 Asn Ala His Ala Ser Ser Pro Thr Ala Leu Ala Leu Leu Asn Trp Arg 215 His Leu Ser Asp His Ala Pro Leu Ser Ala Glu Ile His Leu <210> 6609 <211> 239 <212> PRT <213> Enterobacter cloacae <400> 6609 Lys Ser Pro Val Thr Glu Thr Ser Ile Met Asn Ser Lys Arg Tyr Glu 10 15 Arg Ile Cys Glu Met Leu Ala Arg Arg Gln Pro Asp Leu Thr Val Cys 25 Met Glu Gln Val His Lys Pro His Asn Val Ser Ala Ile Val Arg Thr 40 Ala Asp Ala Val Gly Val His Glu Val His Ala Val Trp Pro Gly Ala

Arg Met Arg Thr Met Ala Ser Thr Ala Ala Gly Ser Asn Ser Trp Val 70 75 Ser Val Lys Thr His Gln Thr Ile Gly Glu Ala Val Ser His Leu Lys 90 85 Gly Arg Gly Met Gln Val Leu Ala Thr Asn Leu Ser Ala Lys Ala Val 105 100 110 Asp Phe Arg Glu Ile Asp Tyr Thr Arg Pro Thr Cys Ile Leu Met Gly 120 125 Gln Glu Lys Thr Gly Ile Thr Gln Glu Ala Leu Asp Leu Ala Asp Arg 135 140 Asp Ile Ile Pro Met Ile Gly Met Val Gln Ser Leu Asn Val Ser 150 155 Val Ala Ser Ala Leu Ile Leu Tyr Glu Ala Gln Arg Gln Arg Gln Asn 165 170 Ala Gly Met Tyr Glu Arg Ser Asn Ser Met Leu Pro Glu Glu Glu Gln 180 185 Gln Arg Leu Leu Phe Glu Gly Gly Tyr Pro Val Leu Ala Arg Val Ala 200 205 Lys Gln Lys Lys Leu Pro Tyr Pro His Val Asn Ala Gln Gly Glu Fle 215 220 Glu Ala Asp Ala Glu Trp Trp Ser Thr Met Gln Tyr Ala Gly 230

<210> 6610

<211> 695

<212> PRT

<213> Enterobacter cloacae

<400> 6610 Ile Met Lys Gly Arg Leu Leu Asp Ala Ile Pro Leu Asn Ser Leu Thr 10 Gly Val Gly Ala Ala Gln Ser Ser Lys Leu Ala Lys Ile Gly Leu His 20 25 30 Thr Val Gln Asp Leu Leu His Leu Pro Leu Arg Tyr Glu Asp Arg 45 Thr Gln Leu Tyr Lys Ile Gly Asp Leu Leu Pro Ala Ile Tyr Ala Thr 55 Val Glu Gly Glu Val Leu Asn Cys Asn Ile Thr Phe Gly Gly Arg Arg 70 Met Met Thr Cys Gln Ile Ser Asp Gly Thr Gly Ile Leu Thr Leu Arg 90 Phe Phe Asn Phe Asn Ala Ala Met Lys Asn Ser Leu Ala Thr Gly Arg 105 Arg Val Leu Ala Tyr Gly Glu Ala Lys Arg Gly Lys Tyr Gly Ala Glu 120 125 Met Ile His Pro Glu Tyr Arg Val Gln Gly Asp Leu Ser Ser Pro Glu 135 140 Leu Gln Glu Thr Leu Thr Pro Val Tyr Pro Thr Thr Glu Gly Ile Lys 155 150 Gln Ala Thr Leu Arg Lys Leu Thr Asp Gln Ala Leu Glu Leu Leu Asp 170 165 Thr Cys Ala Ile Asn Glu Leu Leu Pro Pro Glu Leu Ala Gln Gly Met 185 190 180 Met Ser Leu Pro Glu Ala Leu Arg Thr Leu His Arg Pro Pro Pro Thr 205 200 Leu Gln Leu Val Asp Leu Glu Ser Gly Lys His Pro Ala Gln Arg Arg 215 220 Leu Ile Leu Glu Glu Leu Leu Ala His Asn Leu Ser Met Leu Ala Leu 230 235

Arg Ala Gly Ala Gln Arg Phe His Ala Gln Pro Leu Ser Gln Arg Asp

Glu Leu Lys Asp Lys Leu Leu Ala Ser Leu Pro Phe Lys Pro Thr Gly 265 Ala Gln Ala Arg Val Thr Ala Glu Ile Glu Arg Asp Met Ala Leu Asp 275 280 Val Pro Met Met Arg Leu Val Gln Gly Asp Val Gly Ser Gly Lys Thr 295 300 Leu Val Ala Ala Leu Ala Leu Arg Ala Ile Ala His Gly Lys Gln 310 315 Val Ala Leu Met Ala Pro Thr Glu Leu Leu Ala Glu Gln His Ala Asn 330 325 Asn Phe Arg Asn Trp Phe Ala Pro Leu Gly Ile Glu Val Gly Trp Leu 340 345 Ala Gly Lys Gln Lys Gly Lys Ala Arg Leu Ala Gln Gln Glu Ala Ile 360 Ala Ser Gly Gln Val Gln Met Ile Val Gly Thr His Ala Ile Phe Gln 375 Glu Gln Val Gln Phe Asn Gly Leu Ala Leu Val Ile Ile Asp Glu Gln 390 395 His Arg Phe Gly Val His Gln Arg Leu Ala Leu Trp Glu Lys Gly Leu 405 410 Gln Gln Gly Phe His Pro His Gln Leu Ile Met Thr Ala Thr Pro Ile 420 425 Pro Arg Thr Leu Ala Met Thr Ala Tyr Ala Asp Leu Asp Thr Ser Thr 435 440 445 Ile Asp Glu Leu Pro Pro Gly Arg Thr Pro Val Thr Thr Val Ala Ile 455 460 Pro Asp Thr Arg Arg Ser Asp Ile Ile Asp Arg Val Arg Asn Ala Cys 470 475 Thr His Glu Gly Arg Gln Ala Tyr Trp Val Cys Thr Leu Ile Glu Glu 490 485 Ser Glu Leu Leu Glu Ala Gln Ala Ala Glu Ala Thr Trp Glu Glu Leu 500 505 Lys Leu Ala Leu Pro Glu Leu Asn Val Gly Leu Val His Gly Arg Met 520 525 Lys Pro Ala Glu Lys Gln Ala Val Met Gln Ser Phe Lys Gln Gly Glu 535 540 Leu His Leu Leu Val Ala Thr Thr Val Ile Glu Val Gly Val Asp Val 550 555 Pro Asn Ser Ser Leu Met Ile Ile Glu Asn Pro Glu Arg Leu Gly Leu 565 570 Ala Gln Leu His Gln Leu Arg Gly Arg Val Gly Arg Gly Ala Ile Ala 585 590 Ser His Cys Val Leu Leu Tyr Lys Ala Pro Leu Ser Lys Thr Ala Gln 600 Met Arg Leu Gln Val Leu Arg Asp Ser Asn Asp Gly Phe Val Ile Ala 620 615 Gln Lys Asp Leu Glu Ile Arg Gly Pro Gly Glu Leu Leu Gly Thr Arg 630 635 Gln Thr Gly Asn Ala Glu Phe Lys Val Ala Asp Leu Leu Arg Asp Gln 645 650 Ala Met Ile Pro Glu Val Gln Arg Leu Ala Arg His Ile His Glu Arg 665 Tyr Pro Glu Gln Ala Ala Ala Leu Ile Glu Arg Trp Met Pro Glu Thr 675 680 685 Glu Arg Tyr Ser Asn Ala 695 690

<sup>&</sup>lt;210> 6611

<sup>&</sup>lt;211> 475

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6611 Asn Ala Arg Phe Ser Thr Val Gly Leu Pro Pro Met Ser Val Asn Thr 10 Leu Glu Ser Ala Asp Ala Gln Pro Ile Ala Gln Lys Gln Asn Ser Glu 20 25 Leu Ile Tyr Arg Leu Glu Asp Arg Pro Pro Leu Pro Gln Thr Leu Phe 40 Ala Ala Cys Gln His Leu Leu Ala Met Phe Val Ala Val Ile Thr Pro 55 Ala Leu Leu Ile Cys Gln Ala Leu Gly Leu Pro Ala Gln Asp Thr Gln His Ile Ile Ser Met Ser Leu Phe Ala Ser Gly Val Ala Ser Ile Ile 8.5 Gln Ile Lys Ala Trp Gly Pro Val Gly Ser Gly Leu Leu Ser Ile Gln 105 100 Gly Thr Ser Phe Asn Phe Val Ala Pro Leu Ile Met Gly Gly Thr Ala 125 120 Leu Lys Thr Gly Gly Ala Asp Val Pro Thr Met Met Ala Ala Leu Phe 135 140 Gly Thr Leu Met Leu Ala Ser Cys Thr Glu Met Ile Ile Ser Arg Val 150 155 Leu His Leu Ala Arg Arg Val Ile Thr Pro Leu Val Ser Gly Val Val 165 170 Val Met Ile Ile Gly Leu Ser Leu Ile Gln Val Gly Leu Thr Ser Ile 185 Gly Gly Gly Tyr Ala Ala Met Ser Asp His Thr Phe Gly Ala Pro Lys 195 200 205 Asn Leu Leu Ala Gly Val Val Leu Ala Ile Ile Leu Leu Asn 215 220 Arg Gln Arg Asn Pro Tyr Leu Arg Val Ala Ser Leu Val Ile Ala Met 230 235 Ala Ala Gly Tyr Leu Leu Ala Trp Ala Leu Gly Met Leu Pro Glu Asn 250 Thr Thr Pro Thr Asn Ser Ala Leu Ile Thr Val Pro Thr Pro Leu Tyr 265 Tyr Gly Leu Gly Ile Asp Trp Ser Leu Leu Pro Leu Met Leu Val 280 Phe Met Ile Thr Ser Leu Glu Thr Ile Gly Asp Ile Thr Ala Thr Ser 295 Asp Val Ser Glu Gln Pro Val Ser Gly Pro Leu Tyr Met Lys Arg Leu 310 315 Lys Gly Gly Val Leu Ala Asn Gly Leu Asn Ser Phe Val Ser Ala Val 325 330 Phe Asn Thr Phe Pro Asn Ser Cys Phe Gly Gln Asn Asn Gly Val Ile 345 Gln Leu Thr Gly Val Ala Ser Arg Tyr Val Gly Phe Val Val Ala Leu 360 Met Leu Val Val Leu Gly Leu Phe Pro Ala Val Ser Gly Phe Val Gln 375 380 His Ile Pro Glu Pro Val Leu Gly Gly Ala Thr Leu Val Met Phe Gly 390 395 Thr Ile Ala Ala Ser Gly Val Arg Ile Val Ser Arg Glu Pro Leu Asn 405 410 Arg Arg Ala Ile Met Ile Ile Ala Leu Ser Leu Ala Val Gly Leu Gly 425 430 Val Ser Gln Gln Pro Met Ile Leu Gln Phe Ala Pro Asp Trp Val Lys 440 445 Asn Leu Leu Ser Ser Gly Ile Ala Ala Gly Gly Ile Thr Ala Ile Val Leu Asn Leu Ile Phe Pro Pro Glu Lys Asn

<210> 6612

475

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<211> 110
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<212> PRT
<213> Enterobacter cloacae
<400> 6612
Thr His Phe Gln Tyr His Ala Gln Ser Phe Leu His Leu Trp Ser Ile
                                    10
Leu Ser Met Ala Arg Val Thr Val Gln Asp Ala Val Lys Lys Ile Gly
                                25
Asn Arg Phe Asp Leu Val Leu Val Ala Ala Arg Arg Ala Arg Gln Met
                            40
Gln Val Gly Gly Lys Asp Pro Leu Val Pro Glu Glu Asn Asp Lys Thr
                        5.5
Thr Val Ile Ala Leu Arg Glu Ile Glu Glu Gly Leu Ile Asn Asn Gln
                                        75
                    70
Ile Leu Asp Val Arg Glu Arg Gln Glu Gln Glu Gln Glu Ala Ala
                85
                                    90
Glu Leu Gln Ala Val Thr Ala Ile Ala Glu Gly Arg Arg
            100
                                105
<210> 6613
<211> 576
<212> PRT
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<213> Enterobacter cloacae

<400> 6613

His Pro Tyr Val Arg Phe Ala Gly Arg Lys Thr Met Lys Phe Ile Gly 10 Lys Leu Leu Ile Tyr Leu Leu Val Ala Leu Leu Ile Val Val Leu Ala Phe Tyr Phe Leu Leu Gln Thr Arg Trp Gly Ala Ser Gln Val Ser Ser Trp Ile Thr Val Asn Thr Asp Tyr Glu Leu Asn Phe Asp Leu Met Asp His Arg Phe Ser Ser Pro Ser His Ile Leu Leu Glu Asn Val Thr Phe 70 Gly Arg Asp Gly Lys Pro Ala Thr Leu Val Ala Lys Lys Val Asp Ile 8.5 Gly Leu Ser Ser Arg Gln Ile Thr Asp Pro Leu His Met Asp Ala Ile 105 Thr Leu Phe Asp Gly Thr Leu Asn Leu Ser Pro Gln Thr Ala Pro Leu 120 Pro Phe Gln Ala Asp Arg Leu Gln Leu Asn Asn Met Ala Phe Asn Ser 135 140 Pro Asn Thr Glu Trp Asp Leu Ser Ala Gln Lys Val Thr Gly Gly Val 150 155 Ser Pro Trp Gln Pro Glu Ala Gly Asn Val Leu Gly Lys Asn Ala Gln 165 170 Ile Gln Met Ser Ala Gly Ser Leu Thr Leu Asn Gly Ile Pro Ala Asn 185 190 Asn Val Leu Ile Gln Gly Gln Leu Asn Gly Lys Glu Val Ala Leu Asn 200 Thr Ile Gly Ala Asp Met Ala Arg Gly Ser Leu Thr Gly Ser Ala Leu 215 Arg Asn Ala Asp Gly Gly Trp Val Ile Asn Thr Leu Arg Leu Asn Glu 230 235 Ile Arg Leu Gln Ser Asp Lys Ser Leu Leu Asp Phe Phe Ala Pro Leu 250

Ser Thr Leu Pro Ser Leu Gln Ile Gly Arg Leu Glu Val Thr Asp Ala 260 265 Arg Leu Gln Gly Pro Asp Trp Ala Val Thr Asp Leu Asp Leu Ser Leu 280 285 Arg Asn Leu Thr Leu Ser Lys Gly Asp Trp Gln Ser Gln Glu Gly Arg 295 300 Leu Ser Met Asn Ala Ser Glu Phe Ile Tyr Gly Ser Leu His Leu Phe 310 315 Asp Pro Ile Leu Asn Ala Glu Phe Ser Pro Gln Gly Ile Ala Leu Arg 325 330 Gln Phe Thr Ser Arg Trp Glu Gly Gly Met Val Arg Thr Ser Gly Asn 345 Trp Leu Arg Glu Gly Gln Ala Leu Val Leu Asp Asp Val Ala Ile Ala 360 Gly Leu Glu Tyr Thr Leu Pro Glu Asn Trp Lys Thr Leu Trp Met Asp 375 380 Pro Leu Pro Ala Trp Leu Asn Ser Val Thr Leu Lys Lys Phe Gly Leu 390 395 Ser Arg Asn Leu Val Ile Asp Ile Asp Pro Ala Phe Pro Trp Gln Ile 410 405 Thr Ser Leu Asp Gly Tyr Gly Ala Asn Leu Arg Leu Ala Gln Asp His 420 425 Lys Trp Gly Val Trp Gly Gly Asn Ala Thr Leu Asn Gly Ala Ala Ala 435 440 445 Thr Phe Asn Arg Val Asp Val Arg Arg Pro Ser Leu Ala Leu Asn Ala 455 460 Asn Ala Ala Thr Val Asn Ile Thr Asp Leu Ser Ala Phe Thr Glu Lys 470 475 Gly Ile Leu Glu Ala Thr Ala Thr Val Ser Gln Leu Pro Gln Arg Gln 490 485 Thr Thr Val Ser Leu Asn Gly Arg Gly Val Pro Leu Asn Val Leu Gln 500 505 Gln Trp Gly Trp Pro Ala Leu Pro Ile Ala Gly Asp Gly Asn Ile Gln 515 520 525 Leu Thr Ala Ser Gly Ser Val Gln Ala Asn Ala Pro Leu Lys Pro Thr 535 540 Val Asn Gly Lys Leu Ser Ala Val Asn Met Asp Lys Gln Gln Val Gln 550 555 Gln Thr Met Thr Gly Gly Val Val Ser Thr Val Ala Pro Ala Gln 565 570

<210> 6614 <211> 710

<212> PRT

<213> Enterobacter cloacae

<400> 6614

Thr Cys Gly Ser Pro Leu Tyr Leu Phe Glu Ser Leu Asn Gln Leu Ile 10 Gln Thr Tyr Leu Pro Glu Asp Gln Ile Lys Arg Leu Gln Gln Ala Tyr Leu Val Ala Arg Asp Ala His Glu Gly Gln Thr Arg Ser Ser Gly Glu 40 45 Pro Tyr Ile Thr His Pro Val Ala Val Ala Cys Ile Leu Ala Glu Met 55 Lys Leu Asp Tyr Glu Thr Leu Met Ala Ala Leu Leu His Asp Val Ile 75 70 Glu Asp Thr Pro Ala Thr Tyr Gln Asp Met Glu Gln Leu Phe Gly Lys 85 90 Ser Val Ala Glu Leu Val Glu Gly Val Ser Lys Leu Asp Lys Leu Lys 105

Phe Arg Asp Lys Lys Glu Ala Gln Ala Glu Asn Phe Arg Lys Met Ile 115 120 125 Met Ala Met Val Gln Asp Ile Arg Val Ile Leu Ile Lys Leu Ala Asp 135 140 Arg Thr His Asn Met Arg Thr Leu Gly Ser Leu Arg Pro Asp Lys Arg 150 155 Arg Arg Ile Ala Arg Glu Thr Leu Glu Ile Tyr Ser Pro Leu Ala His 165 170 Arg Leu Gly Ile His His Ile Lys Thr Glu Leu Glu Glu Leu Gly Phe 185 Glu Ala Leu Tyr Pro Asn Arg Tyr Arg Val Ile Lys Glu Val Val Lys 200 Ala Ala Arg Gly Asn Arg Lys Glu Met Ile Gln Lys Ile Leu Ser Glu 215 220 Ile Glu Gly Arg Leu Gln Glu Ala Gly Ile Pro Cys Arg Val Ser Gly 230 235 Arg Glu Lys His Leu Tyr Ser Ile Tyr Cys Lys Met Val Leu Lys Glu 250 245 Gln Arg Phe His Ser Ile Met Asp Ile Tyr Ala Phe Arg Val Ile Val 265 270 260 His Asp Ser Asp Thr Cys Tyr Arg Val Leu Gly Gln Met His Ser Leu 285 275 280 Tyr Lys Pro Arg Pro Gly Arg Val Lys Asp Tyr Ile Ala Ile Pro Lys 300 295 Ala Asn Gly Tyr Gln Ser Leu His Thr Ser Met Ile Gly Pro His Gly 310 315 Val Pro Val Glu Val Gln Ile Arg Thr Glu Asp Met Asp Gln Met Ala 325 330 Glu Met Gly Val Ala Ala His Trp Ala Tyr Lys Glu His Gly Glu 340 345 350 Ser Ser Thr Thr Ala Gln Ile Arg Ala Gln Arg Trp Met Gln Ser Leu 360 365 Leu Glu Leu Gln Gln Ser Ala Gly Ser Ser Phe Glu Phe Ile Glu Ser 375 380 Val Lys Ser Asp Leu Phe Pro Asp Glu Ile Tyr Val Phe Thr Pro Glu 390 395 Gly Arg Ile Val Glu Leu Pro Ala Gly Ala Thr Pro Val Asp Phe Ala 405 410 Tyr Ala Val His Thr Asp Ile Gly His Ala Cys Val Gly Ala Arg Val 420 425 430 Asp Arg Gln Pro Tyr Pro Leu Ser Gln Pro Leu Phe Ser Gly Gln Thr 440 445 Val Glu Ile Ile Thr Ala Pro Gly Ala Arg Pro Asn Ala Ala Trp Leu 455 Asn Phe Val Val Ser Ser Lys Ala Arg Ala Lys Ile Arg Gln Leu Leu 470 475 Lys Asn Leu Lys Arg Asp Asp Ser Val Ser Leu Gly Arg Arg Leu Leu 490 Asn His Ala Leu Gly Gly Ser Arg Lys Leu Ala Glu Ile Pro Pro Glu 505 510 Asn Ile Gln His Glu Leu Glu Arg Met Lys Leu Ala Ser Leu Asp Asp 515 520 525 Leu Leu Ala Glu Ile Gly Leu Gly Asn Ala Met Ser Val Val Val Ala 540 535 Lys Asn Leu Gln Gln Gly Glu Thr Thr Ala Val Pro Ala Thr Thr Gln 550 555 Asn His Gly His Leu Pro Ile Lys Gly Ala Asp Gly Val Leu Ile Thr 565 570 Phe Ala Lys Cys Cys Arg Pro Ile Pro Gly Asp Pro Ile Ile Ala His 585 Val Ser Pro Gly Lys Gly Leu Val Ile His His Glu Ser Cys Arg Asn

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600
Ile Arg Gly Tyr Gln Lys Glu Pro Glu Lys Phe Met Ala Val Glu Trp
                        615
                                            620
Asp Lys Glu Thr Ala Gln Glu Phe Ile Thr Glu Ile Lys Val Asp Met
                    630
                                        635
Phe Asn His Gln Gly Ala Leu Ala Asn Leu Thr Ala Ala Ile Asn Thr
                645
                                    650
Ala Ser Ser Asn Ile Gln Ser Leu Asn Thr Glu Glu Lys Asp Gly Arg
            660
                                665
                                                    670
Val Tyr Ser Ala Phe Ile Arg Leu Thr Ala Arg Asp Arg Val His Leu
                            680
Ala Asn Ile Met Arg Lys Ile Arg Val Met Pro Asp Val Ile Lys Val
    690
                        695
                                            700
Thr Arg Asn Arg Asn
                    710
<210> 6615
<211> 405
<212> PRT
<213> Enterobacter cloacae
<400> 6615
Gln Glu Pro Phe Met Ile His Leu Asp Thr Leu Ser Thr Leu Val Ala
                                    10
Ala Thr Leu Val Leu Leu Gly Arg Lys Leu Val His Ser Val Ser
                                25
Phe Leu Lys Lys Tyr Thr Ile Pro Glu Pro Val Ala Gly Gly Leu Leu
       35
                            40
                                                45
Val Ala Leu Ala Leu Leu Ile Leu Lys Lys Ser Met Gly Trp Glu Ile
                        55
                                            60
Asp Phe Asp Met Ser Leu Lys Asp Pro Leu Met Leu Ala Phe Phe Ala
                    70
                                        7.5
Thr Ile Gly Leu Asn Ala Asn Leu Ala Ser Leu Arg Ser Gly Gly Lys
                                    90
                85
Val Leu Gly Val Phe Leu Ile Val Val Gly Leu Leu Met Gln
           100
                                105
                                                    110
Asn Ala Ile Gly Ile Gly Met Ala Ser Leu Leu Gly Leu Asp Pro Leu
                            120
                                                125
Met Gly Leu Leu Ala Gly Ser Ile Thr Leu Ser Gly Gly His Gly Thr
                       135
                                            140
Gly Ala Ala Trp Ser Lys Leu Phe Ile Glu Arg Tyr Gly Phe Glu Asn
                   150
                                        155
Ala Thr Glu Val Ala Met Ala Cys Ala Thr Phe Gly Leu Val Leu Gly
               165
                                   170
Gly Leu Ile Gly Gly Pro Val Ala Arg Tyr Leu Val Lys His Ser Thr
                               185
Thr Pro Glu Gly Arg Pro Asp Asp Glu Met Val Pro Thr Ala Phe Glu
                            200
Lys Pro Asp Val Gly Arg Ser Ile Thr Ser Leu Val Met Ile Glu Thr
                        215
Ile Ala Met Ile Ala Ile Cys Leu Thr Val Gly Lys Ile Val Ala Gln
                    230
                                        235
Trp Leu Ala Gly Thr Ala Phe Glu Leu Pro Thr Phe Val Cys Val Leu
                245
                                    250
Phe Ile Gly Val Ile Leu Ser Asn Gly Leu Ala Gln Met Gly Phe Tyr
           260
                                265
                                                    270
Arg Val Phe Glu Arg Ala Val Ser Val Leu Gly Asn Val Ser Leu Ser
                            280
                                                285
Leu Phe Leu Ala Met Ala Leu Met Ser Leu Lys Leu Trp Glu Leu Ala
                        295
                                            300
Ser Leu Ala Leu Pro Met Val Ala Ile Leu Ala Val Gln Ala Val Phe
```

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310
                                        315
Met Ala Leu Tyr Ala Ile Phe Val Thr Trp Arg Met Met Gly Lys Asn
                325
                                    330
Tyr Asp Ala Ala Val Leu Ala Ala Gly His Cys Gly Phe Gly Leu Gly
                                345
Ala Thr Pro Thr Ala Ile Ala Asn Met Gln Ala Ile Thr Glu Arg Phe
                            360
Gly Pro Ser His Met Ala Phe Leu Val Val Pro Met Val Gly Ala Phe
                        375
Phe Ile Asp Ile Val Asn Ala Leu Val Ile Lys Leu Tyr Leu Met Leu
                    390
                                        395
Pro Met Phe Gly
                405
<210> 6616
<211> 195
<212> PRT
<213> Enterobacter cloacae
<400> 6616
Ala His Asp Lys Val Gln Pro Gly Gly Val Arg Thr Cys Pro Arg Arg
Gly Asn Asp Leu His Arg Leu Ser Ala Glu Lys Arg Leu Arg Gln Arg
            20
Ile Arg Leu Pro Val Asp Ala Gly Thr Tyr Ala Gly Val Ala Asp Ile
                            40
Gly Met His Gly Val Ser Glu Val Asp Arg Cys Arg Ala Arg Arg Gln
Phe Asp Asn Ala Pro Phe Arg Glu Asn Val Asn Leu Ile Arg Glu
Glu Ile Gly Phe Asn Ala Leu Asp Lys Phe Lys Arg Ala Thr Cys Ala
Leu Leu Gln Leu Gln Gln Ala Leu His Pro Ala Leu Gly Ala Asp Leu
                                105
Arg Gly Gly Ala Ala Phe Ala Ala Val Leu Phe Val Ser Pro Val Arg
       115
                            120
Arg Asp Thr His Leu Arg His Leu Ile His Ile Phe Gly Thr Asn Leu
                        135
                                            140
His Leu Asn Arg Asp Thr Val Arg Ala Asn His Gly Gly Val Gln Arg
                    150
                                        155
Leu Ile Ser Val Arg Phe Trp Asn Gly Asp Val Ile Phe Asp Ala Pro
                                    170
                165
Arg Thr Arg Leu Val Gln Ala Val His Leu Pro Gln His Ala Ile Thr
            180
                                185
Gly Val
       195
<210> 6617
<211> 85
<212> PRT
<213> Enterobacter cloacae
<400> 6617
Val Met Ala Asn Ile Glu Ile Tyr Thr Lys Ala Thr Cys Pro Phe Cys
His Arg Ala Lys Ala Leu Leu Ser Ser Lys Gly Val Thr Phe Lys Glu
Leu Pro Ile Asp Gly Asp Ala Ile Lys Arg Glu Glu Met Ile Gln Arg
                           40
Ser Gly Arg Thr Thr Val Pro Gln Ile Phe Ile Asp Ala Gln His Ile
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<212> PRT

Gly Gly Cys Asp Asp Leu Tyr Ala Leu Asp Ala Arg Gly Gly Leu Asp 75 Pro Leu Leu Ser <210> 6618 <211> 362 <212> PRT <213> Enterobacter cloacae <400> 6618 Cys Ala Val His Glu Leu Ser Thr Ala Ala Gly Trp Arg Arg Cys Arg 10 Thr Thr Ser Gly Cys Leu Met Ser Thr Val Asn Ala Ser Met Thr Val 20 25 Ile Gly Ala Gly Ser Tyr Gly Thr Ala Leu Ala Ile Thr Leu Ala Arg 35 40 Asn Gly His Asp Val Val Leu Trp Gly His Asp Pro Lys His Ile Ala Thr Leu Gln His Asp Arg Cys Asn Val Ala Phe Leu Pro Asp Val Pro 70 Phe Pro Asp Ser Leu Tyr Leu Glu Ser Asp Leu Ala Thr Ala Leu Ala 85 90 Val Ser Arg Asn Ile Leu Ile Val Val Pro Ser His Val Phe Gly Glu 100 105 Val Leu Arg Gln Ile Lys Pro Leu Met Arg Ala Asp Ala Arg Ile Val 120 Trp Ala Thr Lys Gly Leu Glu Ala Glu Thr Gly Arg Leu Leu Gln Asp 135 140 Val Ala Arg Glu Ala Leu Gly Thr Ala Ile Pro Leu Ala Val Ile Ser 155 Gly Pro Thr Phe Ala Lys Glu Leu Ala Ala Gly Leu Pro Thr Ala Ile 170 Ser Leu Ala Ser Thr Asp Gln Ala Phe Ser Asp Asp Leu Gln Gln Leu Leu His Cys Gly Lys Ser Phe Arg Val Tyr Ser Asn Pro Asp Phe Ile 200 195 Gly Val Gln Leu Gly Gly Ala Val Lys Asn Val Ile Ala Ile Gly Ala 215 220 Gly Met Ser Asp Gly Ile Gly Phe Gly Ala Asn Ala Arg Thr Ala Leu 230 235 Ile Thr Arg Gly Leu Thr Glu Met Ser Arg Leu Gly Glu Ala Leu Gly 245 250 Ala Asp Pro Ala Thr Phe Met Gly Met Ala Gly Leu Gly Asp Leu Val 265 270 260 Leu Thr Cys Thr Asp Asn Gln Ser Arg Asn Arg Arg Phe Gly Met Met 275 280 Leu Gly Gln Gly Ser Asp Val Lys Ser Ala Gln Glu Lys Ile Gly Gln 295 300 Val Val Glu Gly Tyr Arg Asn Thr Lys Glu Val Arg Glu Leu Ala His 310 315 Arg Phe Gly Val Glu Met Pro Ile Thr Glu Glu Ile Tyr Gln Val Leu 325 330 Tyr Cys Gly Lys Asn Ala Arg Glu Ala Ala Leu Thr Leu Leu Gly Arg 345 Ala Arg Lys Asp Glu Arg Ser Ser Asn <210> 6619 <211> 292

#### <213> Enterobacter cloacae

<400> 6619 Met Thr Gln Pro Ala Gln Asn Trp Leu Val Ile Asn Tyr Arg Leu Glu 10 Gln Ala Met Pro Cys Glu Glu Leu Asp Ile Val Trp Asn Asn Ile Lys 25 Ala Glu Ala Arg Ala Leu Ala Asp Cys Glu Pro Met Leu Ala Ser Phe 40 Tyr His Ala Thr Leu Leu Lys His Glu Asn Leu Gly Ser Ala Leu Ser 55 Tyr Met Leu Ala Asn Lys Leu Ala Ser Pro Ile Met Pro Ala Ile Ala 70 75 Ile Arg Glu Val Val Glu Glu Ala Tyr Ala Ala Asp Pro Glu Met Ile 85 Ala Ser Ala Ala Cys Asp Ile Gln Ala Val Arg Thr Arg Asp Pro Ala 105 Val Asp Lys Tyr Ser Thr Pro Leu Leu Tyr Leu Lys Gly Phe His Ala 115 120 125 Leu Gln Ala Tyr Arg Ile Gly His Trp Leu Trp Asn Glu Gly Arg Arg 135 140 Ala Leu Ala Ile Phe Leu Gln Asn Gln Val Ser Val Thr Phe Gln Val 150 155 Asp Ile His Pro Ala Ala Lys Ile Gly Arg Gly Ile Met Leu Asp His 170 165 Ala Thr Gly Ile Val Val Gly Glu Thr Ala Val Ile Glu Asp Asp Val 180 185 190 Ser Ile Leu Gln Ser Val Thr Leu Gly Gly Thr Gly Lys Thr Ser Gly 200 Asp Arg His Pro Lys Ile Arg Glu Gly Val Met Ile Gly Ala Gly Ala 215 220 Lys Ile Leu Gly Asn Ile Glu Val Gly Arg Gly Ala Lys Ile Gly Ala 230 235 Gly Ser Val Val Leu Gln Pro Val Pro Pro His Thr Thr Ala Ala Gly 245 250 Val Pro Ala Arg Ile Val Gly Lys Pro Asp Ser Asp Lys Pro Ser Met 260 265 Asp Met Asp Gln His Phe Asn Gly Ile His His Thr Phe Glu Tyr Gly . 275 280 Asp Gly Ile 290 <210> 6620 <211> 153 <213> Enterobacter cloacae

<212> PRT

### <400> 6620

Ser Leu Ser Arg Glu Leu Leu Pro Pro Met Gln Glu Ile Met Gln Phe 10 Val Ser Arg His Pro Val Leu Ser Ile Ala Trp Ile Gly Leu Leu Val 20 25 Ala Val Leu Phe Thr Thr Phe Lys Gly Leu Thr Ser Lys Ile Lys Val 40 Ile Thr Arg Gly Glu Ala Thr Arg Leu Ile Asn Lys Glu Asp Ala Val 55 Val Val Asp Leu Arg Gln Arg Asp Asp Phe Arg Lys Gly His Ile Ala 70 75 Gly Ala Ile Asn Leu Leu Pro Ala Glu Ile Lys Ala Asn Asn Ile Gly 90 Glu Leu Glu Lys His Lys Ala Gln Pro'lle Ile Val Val Asp Gly Thr

100 105 110 Gly Met Gln Ala Gln Glu Ser Ala Asn Ala Leu His Lys Ala Gly Phe 120 125 Glu Asn Val Thr Val Leu Lys Glu Gly Ile Ser Gly Trp Ser Gly Glu 135 140 Asn Leu Pro Leu Val Arg Gly Lys 150 <210> 6621 <211> 168 <212> PRT <213> Enterobacter cloacae <400> 6621 Ala Arg Asp Phe Arg Thr Ile Lys Lys Gly Phe Ser Met Ser Glu Gln 10 Asn Asn Thr Glu Met Thr Phe Gln Ile Gln Arg Ile Tyr Thr Lys Asp 25 Val Ser Phe Glu Ala Pro Asn Ala Pro His Val Phe Gln Lys Asp Trp 40 Gln Pro Glu Val Lys Leu Asp Leu Asp Thr Ala Ser Thr Gln Leu Ala 55 Asp Asp Val Tyr Glu Val Val Leu Arg Val Thr Val Thr Ala Ser Leu 70 75 Gly Glu Glu Thr Ala Phe Leu Cys Glu Val Gln Gln Gly Gly Ile Phe 90 85 Ser Ile Gly Gly Ile Glu Gly Asn Gln Met Ala His Cys Leu Gly Ala 100 105 110 Tyr Cys Pro Asn Ile Leu Phe Pro Tyr Ala Arg Glu Cys Ile Thr Ser 120 125 Leu Val Ser Arg Gly Thr Phe Pro Gln Leu Asn Leu Ala Pro Val Asn 135 140 Phe Asp Ala Leu Phe Met Asn Tyr Leu Gln Gln Gln Ala Gly Glu Gly 150 155 Ala Glu Gln His Gln Asp Ala 165 <210> 6622 <211> 173 <212> PRT <213> Enterobacter cloacae <400> 6622 Ser Lys Ala Arg Cys Ile Asp Ser Pro Gly Phe Phe Ile Trp Leu Phe 10 Arg Arg Ser Asp Ala Val Ala Val Phe Glu Gly Val Val Asn Thr Val 20 25 Glu Val Leu Ile His Ile His Arg Arg Leu Ile Ala Val Trp Leu Thr 40 Asp Asp Ala Arg Arg Asp Ala Ser Gly Gly Val Arg Arg Tyr Arg 55 Leu Glu His Asn Arg Pro Arg Ala Asn Leu Arg Ala Ala Ser Asp Phe 70 75 Asn Ile Ala Glu Asp Phe Ser Thr Arg Ala Asn His His Pro Phe Thr 85 90 Asn Phe Arg Met Ala Ile Ala Ala Gly Phe Thr Gly Thr Ala Gln Arg 105 Asn Gly Leu Gln Asp Arg His Val Ile Phe Asp His Arg Arg Phe Thr 120 Asp Asn Asn Ala Gly Gly Val Val Glu His Asp Pro Thr Ala Asn Phe

 Arg Arg Arg Met Asn Ile Asp Leu Glu Gly His Gly Asn Leu Val Leu

 145
 150
 155
 160

 Lys Lys Asp Gly Gln Arg Ala Ala Ser Leu Ile Pro
 165
 170

<210> 6623

<211> 529

<212> PRT

<213> Enterobacter cloacae

<400> 6623

Asn Tyr Ala Lys Phe Leu Ser Leu Glu His Glu Val Val Ala Met Ser 10 Val Ser Lys Lys Pro Met Val Leu Val Ile Leu Asp Gly Tyr Gly Tyr 20 25 Arg Glu Asp Gln Gln Asp Asn Ala Ile Phe Asn Ala Lys Thr Pro Val 45 40 Met Asp Ala Leu Trp Ala Lys Arg Pro His Thr Leu Ile Asp Ala Ser 55 Gly Leu Glu Val Gly Leu Pro Asp Arg Gln Met Gly Asn Ser Glu Val 70 Gly His Val Asn Leu Gly Ala Gly Arg Ile Val Tyr Gln Asp Leu Thr 90 Arg Leu Asp Val Glu Ile Lys Glu Arg Thr Phe Phe Ala Asn Pro Thr 100 105 110 Leu Thr Gly Ala Val Asp Lys Ala Val Ala Ala Gly Lys Ala Val His 120 125 Ile Met Gly Leu Leu Ser Ala Gly Gly Val His Ser His Glu Asp His 135 Ile Met Ala Met Val Glu Leu Ala Ala Glu Arg Gly Ala Glu Lys Ile 150 155 Tyr Leu His Ala Phe Leu Asp Gly Arg Asp Thr Pro Pro Arg Ser Ala 170 Lys Gly Ser Leu Glu Ala Phe Glu Asp Lys Phe Ala Ala Leu Gly Lys 185 Gly Arg Val Ala Ser Ile Ile Gly Arg Tyr Tyr Ala Met Asp Arg Asp 200 Asn Arg Trp Asp Arg Val Glu Gln Ala Tyr Asp Leu Leu Thr Leu Ala 215 Lys Gly Glu Phe Gln Phe Pro Thr Ala Val Glu Gly Leu Glu Ala Ala 230 235 Tyr Ala Arg Asp Glu Asn Asp Glu Phe Val Lys Ala Thr Val Ile Arg 245 250 Ala Glu Gly Gln Ala Asp Ala Ala Met Glu Asp Gly Asp Ala Leu Ile 265 Phe Met Asn Phe Arg Ala Asp Arg Ala Arg Glu Ile Thr Arg Ala Phe 280 Val Asn Ser Asp Phe Asp Gly Phe Ala Arg Lys Lys Val Ala Lys Ile 295 300 Asp Phe Ile Gln Leu Thr Glu Tyr Ala Ala Asp Ile Lys Ala Pro Cys 310 315 Ala Tyr Pro Pro Ala Ser Leu Ala Asn Thr Phe Gly Glu Trp Met Ala 325 330 Lys Asn Asp Lys Thr Gln Leu Arg Ile Ser Glu Thr Glu Lys Tyr Ala 345 His Val Thr Phe Phe Phe Asn Gly Gly Val Glu Glu Pro Phe Lys Gly 360 Glu Asp Arg Ile Leu Ile Asn Ser Pro Lys Val Ala Thr Tyr Asp Leu 375 380

Gln Pro Glu Met Ser Ser Ala Glu Leu Thr Glu Lys Leu Val Ala Ala

395

Ile Glu Ser Gly Lys Tyr Asp Thr Ile Ile Cys Asn Tyr Pro Asn Gly 405 410 Asp Met Val Gly His Thr Gly Val Met Glu Ala Ala Val Lys Ala Val 420 425 430 Glu Ala Leu Asp His Cys Val Glu Gln Val Ala Lys Ala Val Glu Ser 440 Val Gly Gly Gln Leu Leu Ile Thr Ala Asp His Gly Asn Ala Glu Gln 455 Met Arg Asp Pro Ala Thr Gly Gln Ala His Thr Ala His Thr Asn Leu 470 475 Pro Val Pro Leu Ile Tyr Val Gly Asp Lys Ser Val Lys Ala Val Glu 490 485 Gly Gly Lys Leu Ser Asp Ile Ala Pro Thr Met Leu Ser Leu Met Gly 505 500 Met Glu Ile Pro Glu Glu Met Thr Gly Lys Pro Leu Phe Ile Val Glu 515 520

<210> 6624 <211> 431 <212> PRT

<213> Enterobacter cloacae

<400> 6624 Ser Leu Pro Met Arq Gly Lys Ala Ile Phe Ser Ile Thr Trp Val Met 10 Lys Pro Leu Arg Leu Ser Val Arg Pro Leu Leu Cys Ala Ser Ala Leu 25 Ser Ala Gly Val Leu Leu Cys Ala Ala Ser Ala His Ala Asp Asp Arg 40 Asp Gln Leu Lys Ser Ile Gln Ala Asp Ile Ala Ala Lys Glu Arg Ala Val Arg Gln Gln Gln Gln Arg Ala Thr Leu Leu Ala Gln Leu Lys 75 80 Lys Gln Glu Glu Ala Ile Ser Ala Ala Ala Arg Lys Leu Arg Glu Thr 90 Gln Asn Thr Leu Ala Gln Leu Asn Lys Gln Ile Asp Glu Met Asn Ala 100 105 Ser Ile Ala Lys Leu Glu Arg Gln Arg Asp Ala Gln Glu Arg Asn Leu 120 Ala Ala Gln Leu Asp Ala Ala Phe Arg Gln Gly Glu His Thr Gly Leu 140 135 Gln Leu Ile Leu Ser Gly Glu Glu Ser Gln Arg Gly Gln Arg Leu Gln 150 155 Ala Tyr Phe Gly Tyr Leu Asn Gln Ala Arg Gln Glu Thr Ile Ala Gln 165 170 Leu Lys Gln Thr Arg Glu Glu Val Thr Thr Gln Lys Ala Glu Leu Glu 185 190 180 Glu Lys Gln Ser Gln Gln Gln Thr Leu Leu Tyr Asp Gln Gln Ala Gln 200 205 Gln Glu Lys Leu Glu Gln Ala Arg Asn Glu Arg Lys Lys Thr Leu Ala 215 220 Gly Leu Glu Ser Ser Ile Gln Ala Gly Gln Ser Gln Leu Ser Glu Met 230 235 Arg Ala Asn Glu Ser Arg Leu Arg Asn Ser Ile Ala Arg Ala Glu Ala 250 Ala Ala Lys Ala Arg Ala Glu Lys Glu Ala Arg Glu Ala Gln Ala Val 265 Arg Asn Lys Gln Gln Glu Ala Ser Arg Lys Gly Thr Thr Tyr Lys Pro 280

Thr Glu Asn Glu Arg Ser Leu Met Ser Arg Thr Gly Gly Leu Gly Ser 295 300 Pro Arg Gly Gln Ala Tyr Trp Pro Val Arg Gly Thr Ile Leu His Arg 310 315 Tyr Gly Glu Gln Leu Gln Gly Glu Leu Arg Trp Lys Gly Ile Val Ile 330 325 Gly Ala Ser Glu Gly Ser Glu Val Lys Ala Ile Ala Asp Gly Arg Val 345 Ile Leu Ala Asp Trp Leu Gln Gly Tyr Gly Leu Val Val Val Val Glu 360 His Gly Lys Gly Asp Met Ser Leu Tyr Gly Tyr Asn Gln Ser Ala Leu 370 375 380 Val Ser Val Gly Thr Gln Val Arg Ala Gly Gln Pro Ile Ala Leu Val 390 395 Gly Ser Ser Gly Gly Gln Gly Arg Pro Ser Leu Tyr Phe Glu Ile Arg 405 410 Arg Gln Gly Gln Ala Val Asn Pro Gln Pro Trp Leu Gly Arg 425 420

<210> 6625 <211> 322

<211> 322 <212> PRT

<213> Enterobacter cloacae

<400> 6625 Val Leu Leu Gln Phe Arg Arg Ile Val Phe Ser Val Val Ser Ala Leu Ala Leu Ala Ala Pro Val Tyr Ala Gly Lys Leu Ala Ile Val Ile Asp 25 Asp Phe Gly Tyr Arg Pro His Tyr Glu Asn Gln Val Leu Ala Met Pro 40 Ser Ala Ile Ser Val Ala Val Leu Pro Asn Ala Pro His Ala His Glu Met Ala Thr Lys Ala His Asn Gly Gly His Gln Val Leu Ile His Leu 75 Pro Met Ala Pro Leu Ser Lys Gln Pro Leu Glu Lys Asp Thr Leu Arg Pro Asp Met Ser Ser Asp Glu Ile Asp Arg Ile Ile Arg Asp Ala Tyr 105 Asn Lys Val Pro Tyr Ala Val Gly Leu Asn Asn His Met Gly Ser Ala 120 Met Thr Ser Ser Leu Tyr Gly Met Leu Lys Val Met Gln Ala Leu Glu 135 140 Arg Tyr Asn Leu Tyr Phe Leu Asp Ser Met Thr Ile Gly Asn Ser Gln 150 155 Ala Met Arg Ala Ala Gln Gly Thr Gly Val Lys Val Ile Lys Arg Lys 170 165 Val Phe Leu Asp Asp Ser Gln Asn Glu Ala Asp Ile Arg Val Gln Phe 180 185 Asn Arg Ala Val Gln Leu Ala Arg Arg Asn Gly Ser Ala Ile Ala Ile 200 Gly His Pro His Pro Ser Thr Val Arg Val Leu Gln Gln Met Leu Pro 215 220 Gly Leu Pro Ala Asp Ile Thr Leu Val Arg Pro Ser Asp Leu Leu Asn 230 235 Glu Pro Gln Val Asp Thr Ser Arg Pro Gly Ser Ala Gln Pro Pro Ala 245 250 Thr Arg Pro Arg Asn Pro Phe Arg Gly Val Lys Asn Cys Thr Leu Lys 265 Gln Pro Pro Glu Pro Val Tyr Ala Thr Arg Phe Phe Thr Val Ile Gly 280

Glu Ser Ile Asn Ser Ser Thr Leu Val Lys Ile Arg Pro Ala Thr Val 295 300 Ala Gly Leu Gly Lys Lys Asn Pro Asp Arg Val Asn Pro Ile Pro Ala 310 315 Arq

<210> 6626 <211> 139 <212> PRT <213> Enterobacter cloacae

<400> 6626 Ile Val His Glu Gln Arg Ile Lys Val Tyr Trp Arg Glu Val Gln Leu 10 Arg Glu Cys Thr Ala Arg Asn Gln Ala Gly Asp Ala Phe Thr Arg Ile Arg Glu Gln Asp Val Arg Ala Val Cys Thr Gln Ala Met Arg His Leu Val Thr Phe Asp Ala Ala Asp Gly Glu Asp Thr Ala Leu Leu Asn Phe 55 Ala Gln Glu Arg Ser Phe Phe Ala Gln Arg Gly Gly His Gly Asp Thr 70 75 Gln Tyr Asp Phe Ile His Ile Ile Arg Gln Leu Gly Gly Cys Gly Ile 90 Gln Ile Lys Phe Asn Leu Trp Leu Pro Val Phe Leu Glu Asn Val Arg 100 105 Arg Ile Trp Arg Phe Glu Arg Asp Ile Leu Gly Val Asp Ala Leu Asp 120 Leu Glu Ser His Leu Gly Val Ile Leu Phe 135

<210> 6627 <211> 202 <212> PRT

<213> Enterobacter cloacae

<400> 6627 Arg Arg His Ser Lys Gly Asp Asp Val Tyr Val Met Asp Ile Asn Gly 10 Leu Ile Glu Gln Tyr Gly Tyr Ala Ala Leu Val Ile Gly Ser Val Ala Glu Gly Glu Thr Ile Thr Leu Leu Gly Gly Val Ala Ala His Gln Gly Leu Leu Lys Phe Ser Leu Val Val Ala Ala Val Ala Leu Gly Gly Met 55 Ile Gly Asp Gln Leu Leu Tyr Phe Leu Gly Leu Arg Phe Gly Pro Thr 70 75 Leu Leu Gln Arg Phe Ala Arg His Gln Lys Lys Ile Arg Arg Ala Gln 85 90 Arg Leu Ile Gln Arg His Pro Tyr Leu Phe Val Ile Gly Thr Arg Phe 105 110 Met Tyr Gly Phe Arg Ile Ile Gly Pro Ile Leu Ile Gly Ala Ser Arg 120 125 Leu Pro Pro Lys Ile Phe Leu Pro Leu Asn Ile Leu Gly Ala Ile Ala 135 140 Trp Ala Leu Ile Phe Thr Thr Leu Gly Tyr Ala Gly Gly Glu Val Ile 150 155 Gly Pro Trp Leu His Asn Leu Asp Gln His Leu Lys His Trp Ala Trp 170

Leu Ile Leu Val Val Ala Val Val Ile Gly Val Arg Leu Trp Leu Lys

180 190 185 His Arg Glu Lys Arg Arg Asp Glu Glu <210> 6628 <211> 144 <212> PRT <213> Enterobacter cloacae <400> 6628 Leu Tyr Asp Glu Tyr Val Ser Ala Arg Thr Phe Thr Met Ser Lys Ser Leu Asn Thr Ile Trp Gln Tyr Leu Arg Ala Phe Val Leu Ile Tyr Ala 25 Cys Leu Tyr Ala Gly Ile Phe Ile Ala Ser Leu Leu Pro Ile Thr Ile 40 45 Pro Gly Ser Ile Ile Gly Met Leu Ile Leu Phe Val Leu Leu Ala Leu 5.5 60 Gln Val Leu Pro Ala Lys Trp Val Asn Pro Gly Cys Phe Val Leu Ile 70 75 Arg Tyr Met Ala Leu Leu Phe Val Pro Ile Gly Val Gly Val Met Gln 85 90 Tyr Tyr Asp Val Leu Lys Ala Gln Phe Gly Pro Ile Val Val Ser Cys 100 105 110 Ala Ile Ser Thr Leu Val Val Phe Leu Val Val Ser Trp Ser Ser His 120 125 Ile Val His Gly Glu Arg Lys Val Val Gly Glu Lys. Thr Lys Lys 130 135 <210> 6629 <211> 120 <212> PRT <213> Enterobacter cloacae <400> 6629 Ile Arg His His Ala Asp Cys His Gly Arg Gly Arg Gln His Arg Gly 1~ 10 His Ser Gly His Gln Arg Arg Val Arg Asp Phe Arg Arg Tyr Pro Gly 30 Arg Gly Val Trp Ser Tyr Ala Ala Glu Tyr His Glu Asn Ser Tyr Gln Ser Gly Thr Arg Ser Gly Asp Gly Tyr Arg Leu Ala Arg Ala Gly His 55 Arg Thr Leu Arg Gly Thr Gly Leu Ser Gly Arg Gly Ile Gln Leu Ala 70 75 Gly Ala Gly Asp Leu Arg Asp Tyr His Phe Pro Gly Arg Ala Val Tyr Leu Pro Asp Tyr Ser Gly Ser Asn Gly Leu Lys Phe Ala Met Arg Arg 100 105 Ala Asn Phe Ile Phe Ile Ser 115 120 <210> 6630 <211> 298 <212> PRT <213> Enterobacter cloacae <400> 6630 Gly Asn Val Met His Pro Arg Phe Gln Ala Ala Phe Ser Gln Leu Ala 10

Glu Asn Leu Gln Ser Ala Leu Ala Pro Val Leu Ala Asp Ala His Phe

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20
                                25
Pro Ala Leu Leu Thr Ala Asp Gln Val Thr Thr Leu Lys Gln Ala Thr
                            40
Gly Leu Asp Glu Asp Ala Leu Ala Phe Ala Leu Leu Pro Leu Ala Ala
                        55
Ala Cys Ala Arg Ala Asp Leu Ser His Phe Asn Val Gly Ala Ile Ala
                    70
                                        75
Arg Gly Val Ser Gly Thr Trp Tyr Phe Gly Gly Asn Met Glu Phe Leu
                85
                                    90
Gly Ala Thr Met Gln Gln Thr Val His Ala Glu Gln Ser Ala Ile Ser
                                105
His Ala Trp Leu Arg Gly Glu Lys Ala Leu Arg Ala Ile Thr Val Asn
                            120
Tyr Thr Pro Cys Gly His Cys Arg Gln Phe Met Asn Glu Leu Asn Ser
                        135
Gly Leu Glu Leu Arg Ile Asn Leu Pro Gly Arg Ala Pro His Thr Leu
                    150
                                        155
Arg Asp Tyr Leu Pro Asp Ala Phe Gly Pro Lys Asp Leu Glu Ile Lys
                                    170
Thr Leu Leu Met Asp Glu Gln Asp His Gly Tyr Ala Leu Ser Gly Asp
                                185
Glu Leu Ser Glu Ala Ala Ile Ala Ala Ala Asn Lys Ser His Thr Pro
                            200
Tyr Ser Lys Ser Pro Ser Gly Val Ala Leu Gln Cys Arg Asp Gly Arg
                        215
                                            220
Ile Phe Thr Gly Ser Tyr Ala Glu Asn Ala Ala Phe Asn Pro Thr Leu
                    230
                                        235
Pro Pro Leu Gln Gly Ala Leu Asn Leu Leu Ser Leu Asn Gly Tyr Asp
                                    250
                245
Tyr Pro Asp Ile Gln Arg Ala Ile Leu Ala Glu Lys Ala Asp Ala Pro
                                265
Leu Ile Gln Trp Asp Ala Thr Ala Ala Thr Leu Lys Ala Leu Gly Cys
                            280
Ser Thr Ile Asp Arg Val Leu Leu Ala
<210> 6631
<211> 240
<212> PRT
<213> Enterobacter cloacae
<400> 6631
Gly Arg Arg Gly Glu Asn Lys Lys Met Met Ala Asn Ile Trp Trp Ser
                                    10
Leu Pro Leu Thr Leu Val Val Phe Phe Ala Ala Arg Lys Leu Ala Val
Arg Phe Lys Met Pro Leu Leu Asn Pro Leu Leu Val Ala Met Val Val
Ile Ile Pro Phe Leu Leu Thr Gly Ile Ser Tyr Glu Arg Tyr Phe
                        55
Ala Gly Ser Lys Ile Leu Asn Asp Leu Leu Gln Pro Ala Val Val Ala
                    70
                                        75
Leu Ala Phe Pro Leu Tyr Glu Gln Leu His Gln Ile Arg Ala Arg Trp
                85
                                    90
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Lys Ser Ile Ile Thr Ile Cys Phe Val Gly Ser Leu Val Ala Met Ile

Thr Gly Thr Ser Val Ala Leu Met Met Gly Ala Ser Pro Gln Ile Ala

Ala Ser Ile Leu Pro Lys Ser Val Thr Thr Pro Ile Ala Met Ala Val

Gly Gly Ser Ile Gly Gly Ile Pro Ala Ile Ser Ala Val Cys Val Ile

120

135

105

110

125

140

100

2776 150 155 Phe Val Gly Ile Leu Gly Ala Val Phe Gly His Thr Leu Leu Asn Ile 165 170 Met Lys Ile Arg Thr Lys Ala Ala Arg Gly Leu Ala Met Gly Thr Ala 185 Ser His Ala Leu Gly Thr Ala Arg Cys Ala Glu Leu Asp Tyr Gln Glu 200 Gly Ala Phe Ser Ser Leu Ala Leu Val Ile Cys Gly Ile Ile Thr Ser 215 220 Leu Val Ala Pro Phe Ile Phe Pro Ile Ile Leu Ala Val Met Gly 230 <210> 6632 <211> 255 <212> PRT <213> Enterobacter cloacae <400> 6632 Pro Gly Gly Tyr Ser Ser Leu Arg Glu Ile Ser Ser Ser Val Arg Ala 10 Ile Cys Met Leu Lys Arg Val Phe Tyr Ser Leu Ser Val Leu Val Gly 25 Ile Leu Leu Ile Val Leu Gly Leu Asp Arg Trp Met Ser Trp Lys-40 Thr Ala Pro Tyr Ile Phe Asp Asp Leu Gln Asp Leu Pro Tyr Arg Gln 55 Val Gly Val Val Leu Gly Thr Ala Lys Tyr Tyr Arg Thr Gly Val Ile 70 75 Asn Gln Tyr Tyr Arg Tyr Arg Ile Gln Gly Ala Leu Asn Ala Tyr Asn 90 Ser Gly Lys Val Asn Tyr Leu Leu Ser Gly Asp Asn Ala Leu Gln 100 Ser Tyr Asn Glu Pro Val Thr Met Arg Lys Asp Leu Ile Ala Ala Gly 120 Val Asp Pro Ala Asp Ile Val Leu Asp Tyr Ala Gly Phe Arg Thr Leu 135 140 Asp Ser Ile Val Arg Thr Arg Lys Val Phe Asp Thr Asn Asp Phe Ile 150 155 Ile Ile Thr Gln Arg Phe His Cys Glu Arg Ala Leu Phe Ile Ala Leu 165 170 His Met Gly Ile Gln Ala Gln Cys Tyr Ala Val Pro Ser Pro Lys Asp 180 185 Met Leu Ser Val Arg Val Arg Glu Phe Gly Ala Arg Phe Gly Ala Leu 200 195 205 Ala Asp Leu Tyr Leu Phe Lys Arg Glu Pro Arg Phe Leu Gly Pro Leu 215 220 Val Pro Ile Pro Thr Met His Glu Val Pro Glu Asp Ala Gln Gly Tyr 230 235 Pro Ala Val Thr Pro Glu Gln Leu Leu Glu Ile Gln Lys Lys 245 250 <210> 6633 <211> 326 <212> PRT

## <400> 6633

<sup>&</sup>lt;213> Enterobacter cloacae

Arg Ala Ala Thr Ile Ala Arg Leu Phe Ser Gln Val Leu Arg Met Arg

1 5 10 15

Val Leu Leu Ala Pro Met Glu Gly Val Leu Asp Ser Leu Val Arg Glu
20 25 30

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Leu Leu Thr Glu Val Asn Asp Tyr Asp Leu Cys Val Thr Glu Phe Leu
                            40
Arg Val Val Asp Met Leu Leu Pro Glu Lys Ser Phe Tyr Arg Leu Cys
Pro Glu Leu His Arg Gln Ser Arg Thr Pro Ser Gly Thr Leu Val Arg
Val Gln Leu Leu Gly Gln Tyr Pro Glu Trp Leu Ala Glu Asn Ala Ala
                                    90
                85
Arg Ala Val Ala Leu Gly Ser Tyr Gly Val Asp Leu Asn Cys Gly Cys
                                105
            100
Pro Ser Lys Leu Val Asn Gly Ser Gly Gly Gly Ala Thr Leu Leu Lys
       115
                            120
Asp Pro Glu Leu Ile Tyr Arg Gly Ala Lys Ala Met Arg Glu Ala Val
                        135
                                            140
Pro Ser His Leu Pro Val Thr Val Lys Val Arg Leu Gly Trp Asp Ser
                    150
                                        155
Gly Asp Lys Gln Phe Glu Ile Ala Asp Ala Val Gln Gln Ala Gly Ala
                165
                                    170
Thr Glu Leu Val Val His Gly Arg Thr Lys Glu Asp Gly Tyr Lys Ala
                                185
Glu Arg Ile Asn Trp Gln Ala Ile Gly Glu Ile Arg Lys Arg Leu Thr
                            200
Ile Pro Val Ile Ala Asn Gly Glu Ile Trp Asp Tyr Glu Ser Ala Gln
                        215
Ala Cys Leu Lys Glu Thr Gly Cys Asn Ala Val Met Ile Gly Arg Gly
                    230
                                        235
Ala Leu Asn Val Pro Asn Leu Ser Arg Val Val Lys Tyr Asn Glu Pro
                245
                                    250
Arg Met Pro Trp Ala Asp Val Val Lys Leu Gln Lys Tyr Thr Arg
                                265
Leu Glu Lys Gln Gly Asp Thr Gly Leu Tyr His Val Ala Arg Ile Lys
                            280
Gln Trp Leu Ser Tyr Leu Arg Lys Glu Tyr Asp Asp Ala Leu Gly Leu
                        295
Phe Gln Glu Ile Arg Thr Leu Gln Thr Ser Ala Asp Ile Ala Arg Val
Ile Gln Ser Lys Ser
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<210> 6634 <211> 179 <212> PRT

<213> Enterobacter cloacae

<400> 6634

Ile Ile Ile Arg Ser Leu Ile Met Leu Lys Phe Arg Val Ser Leu Leu 10 Ser Leu Ala Leu Leu Gly Val Ser Ala Thr Ala Pro Ala Ile Ala 20 25 Lys Thr Thr Ala Val Ala Thr Ala Ala Gln Pro Gln Ile Ala Ser 40 Gly Ser Ala Met Ile Val Asp Leu Asn Thr Asn Lys Val Ile Tyr Ala 55 Ser His Pro Asp Leu Val Arg Pro Ile Ala Ser Ile Thr Lys Val Met 75 Thr Ala Met Val Val Leu Asp Ala Arg Leu Pro Leu Asp Glu Lys Leu 90 Lys Val Asp Ile Ser His Thr Pro Glu Met Lys Gly Ile Tyr Ser Arg 105 Val Arg Leu Lys Ser Glu Ile Ser Arg Lys Asn Met Leu Leu Leu Ala 120

Leu Met Ser Ser Glu Asn Arg Ala Gly Glu Glu Pro Cys Pro Pro Leu
130 135 140

Ser Trp Arg Leu Arg Arg Val Tyr Pro Arg Asp Glu Cys Gln Ser Gln
145 150 155 160

Ser Ala Gly Asp Glu Lys Tyr Pro Phe Arg Gly Ala Asn Arg Ser Val
165 170 175

Asp Pro

<210> 6635 <211> 310 <212> PRT <213> Enterobacter cloacae

<400> 6635 Ser Lys Asn Ser Gly Ala Gln Arg Ala Tyr Cys Arg Val Asp Ala Glu

10 Arg Ser Val Arg Gly Cys His Ala Pro Ala His Leu Arg Ala Gly Trp 20 Arg Ile Ser Ser Arg Leu Thr Leu Arg Ile Ile Tyr Thr Tyr Leu Phe 40 Ala Asp Phe Gln Glu Val Ser Met Thr Arg Val Ala Ile Val Thr Ala Ser Asp Ser Gly Ile Gly Lys Thr Thr Ala Leu Met Leu Ala Glu Arg 70 75 Gly Phe Asp Ile Gly Val Thr Trp His Ser Asp Glu Glu Gly Ala Leu 85 90 Glu Thr Cys Arg Glu Val Glu Ala Arg Gly Gln Arg Ala Glu Ala Ile 100 105 His Leu Asp Leu Gly Thr Leu Pro Glu Gly Ala Lys Ala Ile Glu Thr 120 125 · Leu Ile Ser Arg Phe Gly Arg Leu Asp Val Leu Val Asn Asn Ala Gly 135 Ala Met Asn Lys Ala Pro Phe Leu Glu Leu Ser Phe Asp Asp Trp Arg 150 Asn Ile Phe Thr Val Asp Val Asp Gly Ala Phe Leu Cys Ser Gln Ile 170 Ala Ala Arg Gln Met Val Lys Gln Gly Glu Gly Gly Arg Ile Val Asn 185 Ile Thr Ser Val His Glu His Thr Pro Leu Pro Asp Ala Ser Ala Tyr 200 195 Thr Ala Ala Lys His Ala Leu Gly Gly Leu Thr Lys Ser Met Ala Leu 215 220 Glu Leu Val Gln His Lys Ile Leu Val Asn Ala Val Ala Pro Gly Ala 230 235 Ile Ala Thr Pro Met Asn Asp Met Asp Asp Ser Glu Val Lys Glu Gly 250 245 Ser Met Pro Glu Ile Pro Leu Ala Arg Pro Gly His Thr Lys Glu Ile 265 270 Ala Ser Leu Val Ala Trp Leu Cys Asp Ser Asp Ala Ser Tyr Thr Thr 280 285 Gly Gln Ser Phe Ile Val Asp Gly Gly Phe Met Leu Ala Asn Pro Gln 295 Phe Lys Pro Glu Gly

<210> 6636

<211> 215

<212> PRT

<213> Enterobacter cloacae

<400> 6636 Ser Lys Ala Cys Ile Ile Leu Lys Leu Ser Leu Thr Gly Arg Gln Gln 10 Gly Gly Val Met Asn His Val Trp Gly Leu Phe Ser His Pro Asp Arg 25 Glu Met Gln Val Ile Arg Asn Glu Asn Glu Thr Val Ala His His Tyr 40 Thr His His Val Leu Leu Met Ala Ala Val Pro Val Val Cys Ala Phe 55 Ile Gly Thr Thr Gln Ile Gly Trp Asn Phe Gly Asp Gly Thr Val Val 70 75 Gln Leu Ser Trp Phe Thr Gly Leu Tyr Leu Ala Ile Leu Phe Tyr Gly 90 Leu Met Leu Ala Gly Val Ala Val Met Gly Arg Val Ile His Trp Met 105 Ala Arg Asn Tyr Pro Gln Arg Pro Ser Leu Ala His Cys Met Val Phe 120 125 Ala Gly Tyr Val Ala Thr Pro Leu Phe Leu Ser Gly Ile Val Ala Leu 135 140 Tyr Pro Leu Val Trp Leu Cys Ala Leu Ile Gly Thr Val Ala Leu Phe 150 155 Tyr Thr Gly Tyr Leu Leu Tyr Val Gly Val Pro Thr Phe Leu Asn Ile 170 165 Asn Lys Glu Glu Gly Leu Ser Phe Ser Ser Ser Thr Leu Ala Ile Gly 185 Val Leu Val Leu Glu Ala Leu Leu Ala Leu Thr Val Ile Leu Trp Gly 200 Tyr Gly Tyr Arg Leu Phe 215 210 <210> 6637 <211> 89 <212> PRT <213> Enterobacter cloacae <400> 6637 Cys Pro Gln Arg Thr Ala Arg Ala Ala Ser Leu Ala His His Tyr Pro 10 Gly Gly Tyr Asp Ala Phe Ile Arg Ala Met Asn Ala Lys Ala Lys Ala 25 Leu Gly Met Lys Asn Thr His Phe Val Glu Pro Thr Gly Leu Ser Ile His Asn Val Ser Thr Gly Arg Asp Leu Thr Lys Leu Leu Ile Ala Ser Lys Gln Tyr Pro Leu Ile Gly Gln Leu Asn Thr Thr Pro Glu Glu Met Ala Asn Phe Ser Lys Pro Gly Val <210> 6638 <211> 477 <212> PRT <213> Enterobacter cloacae <400> 6638 Val His Gly Val Met Lys Arg Ser Leu Thr Leu Ser Leu Ser Ala Pro 10 Leu Val Phe Met Leu Ala Ala Cys Ala Pro Glu His Ala Thr Val Ser 25 Pro Val Lys Thr Gln Ala Ala Ala Thr Val Asn Thr Gln Leu Arg

His Ala Asp Trp Pro Lys Ser Glu Trp Trp Lys Asp Phe Asn Asp Ser 55 60 Gln Leu Asn Ala Leu Ile Asp Lys Ala Leu Ala Asp Ala Pro Asp Met 70 75 Gln Ile Ala Arg Gln Arg Ile Thr Leu Ala Glu Ala Gln Ala Lys Ala 90 Ala Val Ala Ala Glu Gly Pro Gln Leu Asp Phe Ser Ala Asp Val Glu 105 Arg Gln Lys Met Ser Ala Glu Gly Leu Met Gly Pro Phe Ala Leu Thr 120 Asp Pro Ala Ala Gly Thr Thr Gly Pro Trp Tyr Thr Asn Gly Thr Phe 135 140 Gly Leu Thr Ala Gly Trp Asp Leu Asp Leu Trp Gly Lys Asn Arg Ala 155 150 Gln Ile Glu Ala Arg Ile Gly Lys Val Asn Ala Gln Lys Ala Glu Leu 170 165 Glu Gln Thr Arg Gln Leu Leu Ala Ser Ser Val Ala Arg Leu Tyr Trp 180 185 Asp Trp Gln Thr Glu Ala Ala Val Gly Asp Val Leu Ala Gln Ile Lys 200 Arg Glu Gln Glu Asn Ile Ile Gly Ala Asp Arg Glu Leu Tyr Gln His 215 220 Gly Ile Thr Ser Ser Val Glu Gly Val Glu Thr Asp Ile Ser Ala Ser 230 235 Lys Thr Asp Glu Gln Leu Ala Asp Val His Gly Lys Met Lys Ala Ile • 250 245 Glu Ala Arg Leu Asn Ala Leu Thr Asn Thr Pro Ser Val Thr Leu Ala 265 Arg His Ala Leu Pro Asp Ala Glu Ala Ser Leu Pro Ser Thr Leu Gly 280 Tyr Glu Leu Leu Ala Arg Arg Pro Asp Leu Gln Glu Ala His Trp Tyr 295 Ile Glu Ala Ser Met Ser Glu Val Asp Ala Ala Arg Ala Ala Phe Tyr 310 315 Pro Asp Ile Asn Leu Met Ala Phe Leu Gln Gln Asp Ala Leu His Leu 325 330 Ser Asp Leu Phe Arg Ser Ser Ala Gln Gln Met Gly Val Thr Ala Gly 345 Leu Thr Leu Pro Ile Phe Asp Ser Gly Arg Leu Asn Ala Asn Leu Asp 360 Ile Ala Gln Ala Gln Asn Asn Leu Ser Val Ala Asn Tyr Asn Lys Ala 375 380 Val Val Asp Ala Val Asn Gln Val Ala Arg Thr Ala Ser Glu Val Glu 390 395 Thr Leu Thr Ala Lys Asn Gln His Gln Gln Gln Ile Glu Lys Asp Ala 405 410 Ala Arg Val Val Ala Leu Ala Gln Ala Arg Phe Arg Ala Gly Ile Ile 420 425 4.30 Ala Gly Ser Arg Val Ser Glu Ala Lys Ile Pro Ala Leu Lys Glu Arg 440 445 Ile Ala Gly Leu Met Leu Lys Gly Gln Tyr Val Asp Ala Thr Leu Gln 455 Leu Thr Ser Ala Leu Gly Gly Gly Tyr His His Gly 470

<sup>&</sup>lt;210> 6639

<sup>&</sup>lt;211> 853

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Val Lys Pro Gly Ala Ile Ser Tyr Leu Pro Met Asn Asn Thr Ser Glu Tyr Ile Asp Ala Met Pro Leu Thr Asp Ile Lys Lys Ala Ala Leu Pro 25 Ala Ser Asp Ile Arg Ala Val His Thr Ala Leu Asp Gly Glu His Arg His Phe Ser Arg Asp Asp Thr Pro Leu Gly Ser Val Lys Ala Arg 55 Leu Glu Gln Ala Trp Pro Asp Ser Leu Ala Glu Gly Gln Leu Ile Lys 75 Asp Asp Glu Gly Arg Asp Gln Leu Gln Ala Met Pro Lys Ala Thr Arg 90 Ser Ser Met Phe Pro Asp Pro Trp Arg Thr Asn Pro Val Gly Arg Phe 100 105 110 Trp Asp Arg Leu Arg Gly Arg Asp Val Thr Pro Arg Tyr Leu Ser Arg 120 125 Leu Thr Lys Glu Gln Gln Ala Ser Glu Gln Lys Trp Arg Thr Val Gly 135 140 Thr Ile Arg Arg Tyr Ile Leu Leu Leu Thr Leu Ala Gln Thr Val 150 Val Ala Thr Trp Tyr Met Lys Thr Ile Leu Pro Tyr Gln Gly Trp Ala 165 170 Leu Ile Asn Pro Ala Asp Met Ile Gly Gln Asp Ile Trp Val Ser Phe 180 185 Met Gln Leu Pro Tyr Ile Leu Gln Ser Gly Ile Leu Leu Phe 200 195 Ala Val Leu Phe Cys Trp Val Ser Ala Gly Phe Trp Thr Ala Leu Met 215 220 Gly Phe Leu Gln Leu Leu Met Gly Arg Asp Lys Tyr Ser Ile Ser Ala 230 235 Ser Thr Val Gly Asp Glu Pro Leu Asn Pro Glu His Arg Thr Ala Leu 250 245 Ile Met Pro Ile Cys Asn Glu Asp Val Asp Arg Val Phe Ala Gly Leu 265 Arg Ala Thr Trp Glu Ser Val Lys Ala Thr Gly Asn Ala Ala His Phe 280 Asp Val Tyr Ile Leu Ser Asp Ser Tyr Asn Pro Asp Ile Cys Val Ala 300 295 Glu Gln Lys Ala Trp Met Glu Leu Ile Ala Glu Val Gln Gly Glu Gly 315 310 Gln Ile Phe Tyr Arg Arg Arg Arg Arg Arg Val Lys Arg Lys Ser Gly 325 330 Asn Ile Asp Asp Phe Cys Arg Arg Trp Gly Asn Gln Tyr Ser Tyr Met 345 340 Val Val Leu Asp Ala Asp Ser Val Met Ser Gly Asp Cys Leu Ser Gly 360 365 Leu Val Arg Leu Met Glu Ala Asn Pro Asn Ala Gly Ile Ile Gln Ser 375 380 Ser Pro Lys Ala Ser Gly Met Asp Thr Leu Tyr Ala Arg Cys Gln Gln 390 395 Phe Ala Thr Arg Val Tyr Gly Pro Leu Phe Thr Ala Gly Leu His Phe 410 Trp Gln Leu Gly Glu Ser His Tyr Trp Gly His Asn Ala Ile Ile Arg 425 Val Lys Pro Phe Ile Glu His Cys Ala Leu Ala Pro Leu Pro Gly Glu 440 Gly Ser Phe Ala Gly Ser Ile Leu Ser His Asp Phe Val Glu Ala Ala 455 460 Leu Met Arg Arg Ala Gly Trp Gly Val Trp Ile Ala Tyr Asp Leu Pro 475 470 Gly Ser Tyr Glu Glu Leu Pro Pro Asn Leu Leu Asp Glu Leu Lys Arg

				485					490					495	
Asp	Arg	Arg	Trp 500		His	Gly	Asn	Leu 505		Asn	Phe	Arg	Leu 510		Leu
Val	Lys	Gly 515	Met	His	Pro	Val	His 520		Ala	Val	Phe	Leu 525	Thr	Gly	Val
Met	Ser 530	Tyr	Leu	Ser	Ala	Pro 535	Leu	Trp	Phe	Met	Phe 540	Leu	Ala	Leu	Ser
Thr 545	Ala	Leu	Gln	Val	Val 550	His	Ala	Leu	Thr	Glu 555	Pro	Gln	Tyr	Phe	Leu 560
		_	Gln	565					570					575	
			Leu 580					585					590		
		595	Ile				600					605			
_	610	_	Arg			615					620				
625			Ala		630					635					640
			Leu	645					650					655	
_	_		Thr 660					665					670		
		675	Gly				680					685			
_	690		Phe			695					700				
705			Ser		710					715					720
_	_		Lys	725					730					735	
			Asp 740		_		_	745					750		
	_	755	Gly				760					765			
	770		Ala Arg			775					780				
785			Arg		790					795					800
			Arg	805	•				810					815	
			820 Val					825					830		
	Lys	835		ASII	ıyı	ıyı	840	дор	vai	БУЗ	ьец	845	110	пец	AIG
ьеи	850	AIG	цуз												
<210> 6640 <211> 79 <212> PRT															
<212> PRT <213> Enterobacter cloacae															
	0> 60 Ser		Met	Lvs	Val	He	IJe	Val	Val	Met	Met	Ala	Cvs	Lev	Leu
1			Gly	5					10					15	
	_	_	20 Tyr					25					30		
_		35	Leu				40					45			
	9	- 1 -													-

55 Thr Leu Leu Pro Ile Asp Ala Ser His Gly Pro Tyr Glu 70 <210> 6641 <211> 379 <212> PRT <213> Enterobacter cloacae <400> 6641 Arg Lys Leu Cys Gly Cys Lys Leu Ser Leu Phe Ala Ile Ser Cys Arg Pro Ile Phe Ile Ser Gln Arg Leu Gln Asp Leu Tyr Thr Met Pro Val 25 Leu His Asn Arg Val Ser Asn Glu Met Leu Lys Ala Arg Met Leu Ala Glu Thr Glu Pro Arg Thr Thr Ile Ser Phe Tyr Lys Tyr Phe Thr Ile 55 Asp Asp Pro Gln Ala Thr Arg Asp Ala Leu Tyr Gln Ala Phe Thr Ala 75 Leu Asn Val Phe Gly Arg Val Tyr Leu Ala Arg Glu Gly Ile Asn Ala 85 90 Gln Ile Ser Val Pro Glu Ser Lys Val Ser Ala Phe Arg Asp Leu Leu 100 105 110 Tyr Gly Phe Asp Pro Ala Leu Asn Gly Leu Arg Leu Asn Ile Ala Leu 120 Asp Asp Asp Gly Lys Ser Phe Trp Val Leu Arg Met Lys Val Arg Glu 130 135 140 Arg Ile Val Ala Asp Gly Ile Asp Asp Pro Ser Phe Asn Ala Ala Asn 150 155 Val Gly Glu Tyr Leu Lys Ala Ala Glu Val Asn Ala Met Leu Asp Asp 165 170 175 Pro Asp Ala Val Phe Ile Asp Met Arg Asn His Tyr Glu Tyr Glu Val 180 185 190 Gly His Phe Glu Asn Ala Met Glu Ile Pro Ala Asp Thr Phe Arg Glu 200 Gln Leu Pro Lys Ala Val Glu Met Met Gln Glu His Lys Asp Lys Lys 215 220 Ile Val Met Tyr Cys Thr Gly Gly Ile Arg Cys Glu Lys Ala Ser Ala 230 235 Trp Met Lys His Asn Gly Phe Asn Lys Val Trp His Ile Glu Gly Gly 250 Ile Ile Glu Tyr Ala Arg Arg Ala Arg Glu Gln Gly Leu Pro Val Arg Phe Ile Gly Lys Asn Phe Val Phe Asp Glu Arg Met Gly Glu Arg Ile 280 Ser Glu Asp Val Ile Ala His Cys His Gln Cys Gly Thr Pro Cys Asp 295 300 Thr His Thr Asn Cys Lys Asn Asp Gly Cys His Leu Leu Phe Ile Gln 310 315 Cys Pro Ala Cys Ala Glu Lys Phe Asn Gly Cys Cys Ser Glu Leu Cys 325 330 Ser Glu Glu Ser Met Leu Pro Glu Glu Glu Gln Arg Arg Arg Ala 345 Gly Arg Glu Asn Gly Asn Lys Ile Phe Asn Lys Ser Arg Gly Arg Leu 360 Asn Thr Lys Leu Gly Ile Pro Asp Pro Glu 375 <210> 6642

<211> 538

<212> PRT <213> Enterobacter cloacae

<400> 6642 Val Ser Ile Lys Met Asp Arg Ile Asp Ile Ser Thr Gln Arg Gly Lys 10 Cys Leu Leu Ile Met Lys His Lys Pro Gln Met Met Lys Met Arg Trp 25 Leu Gly Val Ala Val Leu Leu Ser Leu Tyr Thr Ser Ser Ala Leu Ala Phe Asn Ile Asp Asp Val Ala Lys Gln Ala Lys Ser Met Ala Gly Lys 5.5 Ser Tyr Glu Ala Pro Lys Ser Asn Leu Pro Ser Val Phe Arg Asp Met 70 Lys Tyr Ala Asp Tyr Gln Gln Ile Gln Phe Asn His Asp Lys Ala Tyr 85 90 Trp Asn Asn Ile Lys Thr Pro Phe Lys Leu Glu Phe Tyr His Gln Gly 105 Met Tyr Phe Asp Thr Pro Val Ala Ile Asn Glu Val Thr Ala Thr Ala 120 Val Arg Lys Ile Lys Tyr Ser Pro Asp Tyr Phe Asn Phe Gly Asp Val 135 140 Gln His Asp Lys Asp Thr Val Lys Asp Leu Gly Phe Ala Gly Phe Lys 150 155 Val Leu Tyr Pro Ile Asn Ser Lys Asp Lys Asn Asp Glu Ile Val Ser 170 165 Met Leu Gly Ala Ser Tyr Phe Arg Val Ile Gly Ala Gly Gln Val Tyr 180 185 Gly Leu Ser Ala Arg Gly Leu Ala Ile Asp Thr Ala Leu Pro Ser Gly 200 Glu Glu Phe Pro Arg Phe Arg Glu Phe Trp Ile Glu Arg Pro Lys Pro 215 220 Thr Asp Lys Arg Leu Thr Ile Tyr Ala Leu Leu Asp Ser Pro Arg Ala 230 235 Thr Gly Ala Tyr Arg Phe Val Ile Met Pro Gly Arg Asp Thr Val Val 250 245 Asp Val Gln Ser Lys Val Tyr Leu Arg Asp Lys Val Gly Lys Leu Gly 270 265 Val Ala Pro Leu Thr Ser Met Phe Leu Phe Gly Pro Asn Gln Pro Ser 280 Pro Ala Thr Asn Phe Arg Pro Glu Leu His Asp Ser Asn Gly Leu Ser 295 300 Ile His Ala Gly Asn Gly Glu Trp Ile Trp Arg Pro Leu Asn Asn Pro 310 315 Lys His Leu Ala Val Ser Ser Phe Ala Met Glu Asn Pro Gln Gly Phe 330 Gly Leu Leu Gln Arg Gly Arg Gln Phe Ser Arg Phe Glu Asp Leu Asp 345 Asp Arg Tyr Asp Leu Arg Pro Ser Ala Trp Val Thr Pro Lys Gly Asp 360 Trp Gly Lys Gly Lys Val Glu Leu Val Glu Ile Pro Thr Asn Asp Glu 375 380 Thr Asn Asp Asn Ile Val Ala Tyr Trp Thr Pro Asp Gln Leu Pro Glu 390 395 Ala Gly Lys Glu Met Asn Phe Lys Tyr Ala Ile Thr Phe Ser Arg Asp 405 410 Glu Asp Lys Leu His Ala Pro Asp Asn Ala Tyr Val Met Gln Thr Arg 425 430 Arg Ser Thr Gly Asp Val Lys Gln Ser Asn Leu Ile Arg Gln Pro Asp 440 Gly Thr Leu Ala Phe Ile Val Asp Phe Thr Gly Gln Asp Met Lys Lys

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455
                                            460
Leu Ala Pro Asp Thr Ala Val Thr Ala Gln Ala Ser Ile Gly Asp Asn
                    470
                                    475
Gly Glu Ile Val Glu Asn Ala Val Arg Tyr Asn Pro Val Thr Lys Gly
                485
                                    490
Trp Arg Leu Thr Leu Arg Val Lys Val Lys Asp Pro Lys Gln Thr Thr
                                505
Glu Met Arg Ala Ala Leu Val Ser Asn Asp Lys Pro Leu Ser Glu Thr
                            520
Trp Ser Tyr Gln Leu Pro Ala Asn Glu
    530
                        535
<210> 6643
<211> 207
<212> PRT
<213> Enterobacter cloacae
<400> 6643
Ser Ala Cys Leu Ala Val Arg Gln Leu Thr Leu Glu His Lys Met Lys
Lys Arg Leu Leu Gly Ile Ala Leu Gly Ser Leu Leu Phe Thr Thr Gly
                                25
Ser Ala Leu Ala Ala Asp Tyr Lys Ile Asp Lys Glu Gly Gln His Ala
                            40
Phe Val Asn Phe Arg Ile Gln His Leu Gly Tyr Ser Trp Leu Tyr Gly
Thr Phe Asn Asp Phe Asp Gly Thr Phe Thr Phe Asp Glu Lys Asn Pro
                    70
                                        75
Ala Ala Asp Lys Val Asn Val Thr Ile Asn Thr Asn Ser Val Asp Thr
               8.5
                                    90
Asn His Ala Glu Arg Asp Lys His Leu Arg Ser Ala Glu Phe Leu Asn
                                105
           100
Val Gly Lys Phe Pro Gln Ala Thr Phe Ala Ser Thr Glu Val Lys Lys
       115
                            120
                                                125
Asp Ser Asp Lys Leu Ala Ile Thr Gly Asn Leu Thr Leu Asn Gly Val
                       135
                                           140
Thr Lys Pro Val Thr Leu Asp Ala Lys Leu Ile Gly Gln Gly Asp Asp
                                       155
                   150
Pro Trp Gly Gly Lys Arg Ala Gly Phe Glu Ala Ala Gly Lys Ile His
                                 .170
               165
Leu Lys Asp Phe Asn Ile Thr Thr Asp Leu Gly Pro Ala Ser Gln Asp
                               185
Val Glu Leu Ile Ile Ser Val Glu Gly Val Gln Gln Lys Ser
                            200
<210> 6644
<211> 319
<212> PRT
<213> Enterobacter cloacae
<400> 6644
Pro Phe Arg Thr Leu Glu His Arg Thr Asp Met Thr Gln Leu Pro Lys
                                   10
Phe Thr Ala Ala Leu Leu His Pro Arg Tyr Trp Leu Thr Trp Ser Gly
                                25
Ile Gly Leu Leu Trp Leu Ile Val Gln Leu Pro Tyr Pro Val Ile Phe
                            40
Arg Met Gly Lys Gly Leu Gly Arg Ile Ala Gln Gln Phe Met Lys Arg
                       55
                                            60
Arg Ala Arg Ile Ala Tyr Arg Asn Leu Glu Leu Cys Phe Pro Gln Met
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Ser Glu Ser Glu Arg His Asp Met Val Val Lys Asn Phe Glu Ser Val 85 90 Gly Met Gly Leu Met Glu Thr Gly Met Ala Trp Phe Trp Ser Asp Lys 100 105 Arg Met Ala Arg Trp Thr Glu Val Ala Gly Thr Gly Met Glu Pro Val 120 His Thr Leu Gln Ala Asn Gln Thr Gly Val Leu Leu Ile Gly Val His 135 Phe Leu Thr Leu Glu Ile Gly Ala Arg Met Phe Gly Met Gln Ala Pro 150 155 Gly Ile Gly Val Tyr Arg Pro Asn Asp Asn Pro Val Ile Asp Leu Ile 170 165 Gln Thr Asn Gly Arg Met Arg Ser Asn Lys Ser Met Ile Asp Arg Lys 185 190 180 Asp Leu Lys Gly Met Ile Arg Ala Leu Lys Ser Gly Glu Val Val Trp 195 200 205 Tyr Ala Pro Asp His Asp Tyr Gly Pro Gln Ser Ser Val Phe Val Pro 220 215 Phe Phe Ala Val Glu Asp Ala Ala Thr Thr Thr Gly Thr Trp Met Leu 230 . 235 Ala Arg Met Ser Lys Ala Ala Ile Val Pro Phe Val Pro Arg Arg Lys 245 250 Pro Asp Gly Ser Gly Tyr Gln Leu Ile Met Leu Glu Pro Glu Leu Ala 260 265 Pro Pro Leu Ile Asp Ala Glu Thr Thr Ala Arg Trp Met Asn Gly Val 280 Val Glu Lys Cys Ile Met Leu Ala Pro Glu Gln Tyr Met Trp Leu His 295 300 Arg Arg Phe Lys Thr Arg Pro Gln Gly Val Pro Ser Arg Tyr 310

<210> 6645

<211> 430

<212> PRT

<213> Enterobacter cloacae

# <400> 6645

Gln Ala Tyr Tyr Leu Thr Gly His Gly Ala Leu His Leu Ile Met Arg 10 Ile Val Met Ser Pro Thr Asp Ala Pro Ile Asn Trp Lys Arg Asn Leu Thr Val Ala Trp Leu Gly Cys Phe Leu Thr Gly Ala Ala Phe Ser Leu 40 Val Met Pro Phe Leu Pro Leu Tyr Val Glu Gln Leu Gly Val Thr Gly 55 His Ser Ala Leu Asn Met Trp Ser Gly Leu Val Phe Ser Ile Thr Phe 70 75 Leu Phe Ser Ala Ile Ala Ser Pro Phe Trp Gly Gly Leu Ala Asp Arg 85 90 Lys Gly Arg Lys Ile Met Leu Leu Arg Ser Ala Leu Gly Met Ala Ile 105 Ile Met Leu Leu Met Gly Met Ala Gln Asn Val Trp Gln Phe Leu Ile 120 125 Leu Arg Ala Leu Leu Gly Leu Leu Gly Gly Phe Ile Pro Asn Ala Asn 135 Ala Leu Ile Ala Thr Gln Ile Pro Arg Gln Lys Ser Gly Trp Ala Leu 150 155 Gly Thr Leu Ser Thr Gly Gly Val Ser Gly Ala Leu Leu Gly Pro Leu 170 Ala Gly Gly Leu Leu Ala Asp His Tyr Gly Leu Arg Pro Val Phe Phe 185

Ile Thr Ala Ser Val Leu Phe Leu Cys Phe Leu Val Thr Leu Ile Cys 200 Ile Arg Glu Asn Phe Thr Pro Val Ala Lys Lys Glu Met Leu His Ala 215 220 Arg Asp Val Leu Ala Ser Leu Lys Asn Pro Lys Leu Val Leu Ser Leu 230 235 Phe Val Thr Thr Met Ile Ile Gln Val Ala Thr Gly Ser Ile Ala Pro 245 250 Ile Leu Thr Leu Tyr Val Arg Asp Leu Ala Gly Asn Val Ser Asn Ile 260 265 Ala Phe Ile Ser Gly Leu Ile Ala Ser Val Pro Gly Val Ala Ala Leu 285 280 Leu Ser Ala Pro Arg Leu Gly Lys Leu Gly Asp Arg Ile Gly Pro Glu 295 300 Lys Ile Leu Ile Cys Ala Leu Ile Val Ser Val Leu Leu Ile Pro 310 315 305 Met Ala Met Val Gln Ser Pro Trp Gln Leu Gly Val Leu Arg Phe Leu 330 325 Leu Gly Ala Ala Asp Gly Ala Leu Leu Pro Ala Val Gln Thr Leu Leu 340 345 Val Tyr Asn Ser Thr Asn Gln Ile Ala Gly Arg Ile Phe Ser Tyr Asn 360 Gln Ser Phe Arg Asp Leu Gly Asn Val Thr Gly Pro Leu Val Gly Ala 375 380 Gly Ile Ser Ala Ser Phe Gly Phe Arg Ala Val Phe Ile Val Thr Ala 390 395 Gly Val Val Leu Phe Asn Ala Val Tyr Ser Trp Leu Ser Leu Ser Arg 405 410 Ala Leu Arg Pro Gly Arg Ile Arg Gln His Arg Asp Gly 420 425

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<210> 6646
<211> 157
<212> PRT
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<213> Enterobacter cloacae

# <400> 6646

Gly Glu Lys Ser Glu Asn Ala Gln Ser Tyr Met Ser Thr Thr Pro Val 10 Gln Arg Glu Tyr Phe Leu Asp Ser Ile Arg Ala Trp Leu Met Leu Leu 25 Gly Ile Pro Phe His Ile Ser Leu Ile Tyr Ser Ser His Thr Trp His 40 Val Asn Ser Gln Met Pro Ser Trp Trp Leu Thr Leu Phe Asn Asp Phe 55 60 Ile His Ala Phe Arg Met Gln Val Phe Phe Val Ile Ser Gly Tyr Phe 70 75 Ser Tyr Met Leu Phe Leu Arg Tyr Pro Leu Lys Arg Trp Trp Lys Val 8.5 90 Arg Val Glu Arg Val Gly Ile Pro Met Leu Thr Ala Ile Pro Leu Leu 100 105 Thr Leu Pro Gln Phe Ile Met Leu Gln His Val Lys Gly Lys Ala Glu 115 120 125 Asn Trp Pro Asn Leu Ser Phe Tyr Glu Lys Tyr Asn Thr Leu Val Trp 135 Glu Leu Ile Ser His Leu Trp Phe Leu Leu Val Leu Val

<sup>&</sup>lt;210> 6647

<sup>&</sup>lt;211> 103 .

<sup>&</sup>lt;212> PRT

#### <213> Enterobacter cloacae

<210> 6648 <211> 217 <212> PRT <213> Enterobacter cloacae

100

<400> 6648 Asn Thr Leu Phe Ile Phe Phe Ser Cys Ile Ile Tyr Leu Thr Arg Pro 10 Phe Leu Leu Ser His Leu Arg Thr Glu Ile His Met Gln Trp Arg 25 Asn Ser Ser Arg Arg Tyr Gly Ile Ile Ser Met Cys Leu His Trp Leu Phe Ala Ile Ala Val Tyr Ala Met Phe Gly Leu Gly Leu Trp Met Val 55 Thr Leu Ser Tyr Tyr Asp Gly Trp Tyr His Gln Ala Pro Glu Leu His 70 75 Lys Ser Ile Gly Val Leu Leu Met Met Gly Leu Val Phe Arg Val Ile 85 . 90 Trp Arq His Ile Ser Pro Pro Pro Pro Ala Pro Lys Ser His Gly Arq 100 105 Leu Thr Arg Ile Ser Ala Val Gly Ala His Ile Ala Leu Tyr Ala Leu 120 Leu Phe Ala Ile Leu Ile Ser Gly Tyr Leu Ile Ser Thr Ala Asp Gly 135 140 Lys Pro Ile Ser Val Phe Gly Leu Phe Asp Val Pro Ala Thr Leu Ala 150 155 Asp Ala Gly Ser Gln Ala Asp Thr Ala Gly Val Val His Leu Trp Leu 165 170 175 Ala Trp Ser Val Val Ile Leu Ser Val Leu His Gly Leu Ala Ala Leu 185 190 Lys His His Phe Ile Asp Lys Asp Asp Thr Leu Lys Arg Met Leu Gly 200 Arg Ser Ser Val Asp Ser Gly Ala

<210> 6649 <211> 141 <212> PRT <213> Enterobacter cloacae

Met Thr Met Tyr Ala Thr Leu Glu Glu Ala Ile Asp Ala Ala Arg Glu 20 25 Glu Phe Leu Ala Asp Asn Pro Gly Ile Glu Glu Glu Asp Ala Asp Val 40 45 Gln Gln Leu Asn Ile Gln Lys Tyr Val Leu Gln Asp Gly Asp Ile Met 55 60 Trp Gln Ala Glu Phe Phe Ala Asp Glu Gly Glu Asp Gly Glu Cys Leu 70 75 Pro Ile Leu Ser Gly Glu Gly Ala Gln Ala Val Phe Asp Gly Asp Tyr 85 90 Asp Glu Ile Glu Leu Arg Gln Glu Trp Leu Glu Glu Asn Thr Leu His 100 105 Glu Trp Asp Glu Gly Glu Phe Gln Leu Glu Pro Pro Leu Asp Thr Glu 120 Glu Gly Gln Ala Ala Asp Glu Trp Asp Glu Arg 135 130

<210> 6650

<211> 91

<212> PRT

<213> Enterobacter cloacae

<400> 6650

 Ser His His Pro Ala Cys Val Cys Gly Ser Ala Pro Asp Arg Tyr Arg

 1
 5
 10
 15

 Tyr Pro Pro Ala Pro Ala Ala Ala Glu Asn Thr Leu Pro Gly Ser Gly Thr
 30

 Ala Ser Ser Val Trp Tyr Ala Gly Gln Pro Trp Asn Gly Trp Arg Ser
 45

 Pro Thr Gln Thr Ala Thr Gly Ser Ala Arg Arg Arg Leu Ala Pro Ala
 55

 Arg Thr Gly Asn Ala Asp Pro Ala Arg Pro Tyr Gln Arg Pro Thr Pro
 75

 60
 80

 Gly Pro Ala Ala Ala Ala Glu Ser Arg Gly Ala

<210> 6651

<211> 433

<212> PRT

<213> Enterobacter cloacae

85

<400> 6651

Ser Asn Ser Lys Leu Ile Phe Tyr His Thr Met Ser Lys Thr His Leu Thr Glu Gln Lys Phe Ser Asp Phe Ala Leu His Pro Lys Val Ile Glu 20 25 Ala Leu Glu Thr Lys Gly Phe His Asn Cys Thr Pro Ile Gln Ala Leu 40 Ala Leu Pro Leu Thr Leu Ala Gly Arg Asp Val Ala Gly Gln Ala Gln 55 Thr Gly Thr Gly Lys Thr Met Ala Phe Leu Thr Ser Thr Phe His Tyr 70 75 Leu Leu Ser His Pro Ala Ile Ala Asp Arg Lys Val Asn Gln Pro Arg 85 90 Ala Leu Ile Met Ala Pro Thr Arg Glu Leu Ala Val Gln Ile His Ala 100 105 Asp Ala Glu Pro Leu Ala Gln Ala Thr Gly Leu Lys Leu Gly Leu Ala 120 125 Tyr Gly Gly Asp Gly Tyr Asp Lys Gln Leu Lys Val Leu Glu Ser Gly 135 140 Val Asp Ile Leu Ile Gly Thr Thr Gly Arg Leu Ile Asp Tyr Ala Lys

150 155 Gln Asn His Ile Asn Leu Gly Ala Ile Gln Val Val Leu Asp Glu 165 170 Ala Asp Arg Met Tyr Asp Leu Gly Phe Ile Lys Asp Ile Arg Trp Leu 180 185 Phe Arg Arg Met Pro Ala Ala Asn Gln Arg Leu Asn Met Leu Phe Ser 200 205 Ala Thr Leu Ser Tyr Arg Val Arg Glu Leu Ala Phe Glu Gln Met Asn 215 220 Asn Ala Glu Tyr Val Glu Val Glu Pro Glu Gln Lys Thr Gly His Arg 230 235 Ile Lys Glu Glu Leu Phe Tyr Pro Ser Asn Glu Glu Lys Met Arg Leu 245 250 Leu Gln Thr Leu Ile Glu Glu Glu Trp Pro Asp Arg Ala Ile Ile Phe 265 Ala Asn Thr Lys His Arg Cys Glu Asp Ile Trp Gly His Leu Ala Ala 280 Asp Gly His Arg Val Gly Leu Leu Thr Gly Asp Val Ala Gln Lys Lys 295 Arq Leu Arg Ile Leu Asp Glu Phe Thr Arg Gly Asp Leu Asp Ile Leu 310 315 Val Ala Thr Asp Val Ala Ala Arg Gly Leu His Ile Pro Ala Val Thr 325 330 His Val Phe Asn Tyr Asp Leu Pro Asp Asp Cys Glu Asp Tyr Val His 345 350 Arg Ile Gly Arg Thr Gly Arg Ala Gly Ala Ser Gly His Ser Ile Ser 360 355 Leu Ala Cys Glu Glu Tyr Ala Leu Asn Leu Pro Ala Ile Glu Thr Tyr 375 380 Ile Gly His Ser Ile Pro Gln Ser Lys Tyr Asn Pro Glu Ala Leu Leu 390 395 Ser Glu Leu Pro Pro Pro Lys Arg Leu Thr Arg Pro Arg Ser Gly Asn 410 415 Gly Pro Arg Arg Ser Gly Gly Ala Pro Arg Asn Arg Arg Arg Ser Gly

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<210> 6652
<211> 497
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<400> 6652

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Glu Asn Met Leu Ser Ser Thr Ser Leu Tyr Ala Ala Ile Asp Leu Gly
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Ser Asn Ser Phe His Met Leu Val Val Arg Glu Val Ala Gly Ser Ile
                                25
Gln Thr Leu Thr Arg Ile Lys Arg Lys Val Arg Leu Ala Ala Gly Leu
Ser Ser Asp Asn His Leu Ser Pro Glu Ala Met Glu Arg Gly Trp Gln
                        55.
Cys Leu Arg Leu Phe Ala Glu Arg Leu Gln Asp Ile Pro Leu Ser Gln
                   70
Ile Arg Val Val Ala Thr Ala Thr Leu Arg Leu Ala Val Asn Ala Gly
                85
                                    90
Asp Phe Ile Ala Arg Ala Gln Glu Ile Leu Gly Cys Pro Val Gln Val
                               105
                                                    110
Ile Ser Gly Glu Glu Glu Ala Arg Leu Ile Tyr Gln Gly Val Ala His
                          120
                                               125
Thr Thr Gly Gly Asp Asp Arg Leu Val Val Asp Ile Gly Gly Ala
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<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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135
                                            140
Ser Thr Glu Leu Val Thr Gly Thr Gly Ala Gln Ala Thr Ser Leu Phe
                    150
                                        155
Ser Leu Ser Met Gly Cys Val Thr Trp Leu Glu Arg Tyr Phe Thr Asp
                                    170
Arg Asn Leu Ala Lys Glu Asn Phe Asp Glu Ala Glu Asn Ala Arg
            180
                                185
Ala Val Leu Arg Pro Val Met Asp Glu Leu Arg Tyr His Gly Trp Lys
                            200
                                                205
Val Cys Val Gly Ala Ser Gly Thr Val Gln Ala Leu Gln Glu Ile Met
    210
                        215
                                            220
Met Ala Gln Gly Met Asp Glu Arg Ile Thr Leu Ala Lys Leu Gln Gln
                    230
                                        235
Leu Lys Gln Arg Ala Ile Gln Cys Gly Arg Leu Glu Glu Leu Glu Ile
                                    250
                245
Glu Gly Leu Thr Leu Glu Arg Ala Leu Val Phe Pro Ser Gly Leu Ala
            260
                                265
                                                    270
Ile Leu Ile Ala Ile Phe Thr Glu Leu Asn Ile Gln Cys Met Thr Leu
                            280
                                                285
Ala Gly Gly Ala Leu Arg Glu Gly Leu Val Tyr Gly Met Leu His Gln
                        295
                                            300
Ser Val Asp Gln Asp Ile Arg Ser Arg Thr Leu Arg Asn Val Gln Arg
                    310
                                        315
Arg Phe Ile Val Asp Thr Asp Gln Ala Gln Arg Val Ser Gln Leu Ala
                325
                                    330
Ser Gln Phe Ala Asp Gln Val Lys Lys Ser Trp Asp Ile Glu Pro Leu
                                345
Ser Arg Asp Leu Leu Ser Ala Cys Ala Leu His Glu Ile Gly Leu
                            360
Ser Val Glu Tyr Lys Gln Ala Pro Leu His Ala Ala Trp Leu Val Arg
                        375
Asn Leu Asp Leu Pro Gly Tyr Thr Pro Ala Gln Lys Lys Leu Leu Ala
                    390
                                        395
Thr Leu Leu Asn Gln Thr Asn Ala Val Asp Leu Ser Ser Leu His
                                    410
Gln Gln Asn Ala Val Pro Pro Arg Val Ala Glu His Leu Cys Arg Leu
            420
                                425
Leu Arg Leu Ala Ile Leu Phe Ala Ser Arg Arg Arg Asp Asp Leu Leu
        435
                            440
                                                445
Pro Ala Ile Thr Leu Ala Ala Asp Asp Glu Lys Leu Thr Leu Thr Leu
                        455
Pro Glu Asn Trp Leu Glu Asp His Pro Leu Gly Ala Glu Leu Ile Glu
                    470
                                        475
Gln Glu Tyr Gln Trp Gln Ser Tyr Val His Trp Ala Leu Asp Val Lys
                                    490
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<210> 6653
<211> 93
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<212> PRT

<213> Enterobacter cloacae

<220> <221>UNSURE <222>(93)

<400> 6653

Ser Thr Gln Gly Thr Ile Met Ala Lys Thr Ala Ala Ala Leu His Ile
1 5 10 15
Leu Val Lys Glu Glu Lys Leu Ala Gln Asp Leu Leu Glu Gln Ile Lys

25 Asn Gly Ala Asp Phe Gly Lys Leu Ala Lys Lys His Ser Ile Cys Pro 40 Ser Gly Lys Arg Gly Gly Asp Leu Gly Glu Phe Arg Gln Gly Gln Met Val Pro Ala Phe Asp Lys Val Val Phe Ser Leu Pro Arg Ser Trp Ser 70 Gln Arg Phe His Thr Arg Arg Trp Lys Asp Asn Ala Xaa <210> 6654 <211> 135 <212> PRT <213> Enterobacter cloacae <400> 6654 Leu Val Asn Ala Thr Ser Thr Arg Arg Trp Trp Arg Gln Asn Gln Arg 10 Thr Arq Leu Ile Pro Val Glu Leu Tyr Met Ser Asp Lys Ile Ile His 25 Leu Thr Asp Asp Ser Phe Asp Thr Asp Val Leu Lys Ala Asp Gly Leu Ile Leu Val Asp Phe Trp Ala Glu Trp Cys Gly Pro Cys Lys Met Ile Ala Pro Ile Leu Asp Glu Ile Ala Asp Glu Tyr Gln Gly Lys Leu Thr 70 75 Val Ala Lys Leu Asn Ile Asp Gln Asn Pro Gly Thr Ala Pro Lys Tyr Gly Ile Arg Gly Ile Pro Thr Leu Leu Phe Lys Asn Gly Asp Val Ala Ala Thr Lys Val Gly Ala Leu Ser Lys Gly Gln Leu Lys Glu Phe 120 115 Leu Asp Ala Asn Leu Ala 130 135 <210> 6655 <211> 677 <212> PRT <213> Enterobacter cloacae <400> 6655 Ser Phe Met Arg Leu Asn Pro Gly Gln Gln Ala Val Glu Phe Val 10 Thr Gly Pro Cys Leu Val Leu Ala Gly Ala Gly Ser Gly Lys Thr Arg 25 Val Ile Thr Asn Lys Ile Ala His Leu Ile Arg Gly Cys Gly Tyr Gln 40 45 Ala Arg His Ile Ala Ala Val Thr Phe Thr Asn Lys Ala Ala Arg Glu 55 Met Lys Glu Arg Val Gly Gln Thr Leu Gly Arg Lys Glu Ala Arg Gly 70 75 Leu Met Ile Ser Thr Phe His Thr Leu Gly Leu Asp Ile Ile Lys Arg 85 90 Glu Tyr Ala Ala Leu Gly Met Lys Ser Asn Phe Ser Leu Phe Asp Asp 105 Thr Asp Gln Val Ala Leu Leu Lys Glu Leu Thr Glu Gly Leu Ile Glu 120 Asp Asp Lys Val Leu Leu Gln Gln Leu Ile Ser Thr Ile Ser Asn Trp 135 140

Lys Asn Asp Leu Met Thr Pro Ala Gln Ala Ala Ala Ser Ala Lys Gly

155

Glu Arg Asp Arg Ile Phe Ala His Cys Tyr Gly Leu Tyr Asp Ala His 165 170 Met Lys Ala Cys Asn Val Leu Asp Phe Asp Asp Leu Ile Leu Leu Pro 180 185 Thr Leu Leu Gln Arg Asn Glu Glu Val Arg Glu Arg Trp Gln Asn 200 Lys Ile Arg Tyr Leu Leu Val Asp Glu Tyr Gln Asp Thr Asn Thr Ser 215 220 Gln Tyr Glu Leu Val Lys Leu Leu Val Gly Gln Arg Ala Arg Phe Thr 230 235 Val Val Gly Asp Asp Gln Ser Ile Tyr Ser Trp Arg Gly Ala Arg 245 250 Pro Gln Asn Leu Val Leu Leu Ser Lys Asp Phe Pro Ala Leu Gln Val 265 260 Ile Lys Leu Glu Gln Asn Tyr Arg Ser Ser Gly Arg Ile Leu Lys Ala 280 Ala Asn Ile Leu Ile Ala Asn Asn Pro His Val Phe Glu Lys Arg Leu 295 300 Phe Ser Glu Leu Gly Tyr Gly Thr Glu Leu Lys Val Leu Ser Ala Asn 310 315 Asn Glu Glu His Glu Ala Glu Arg Val Thr Gly Glu Leu Ile Ala His 325 330 His Phe Val Asn Lys Thr Glu Tyr Lys Asp Tyr Ala Ile Leu Tyr Arg 340 345 Gly Asn His Gln Ser Arg Val Phe Glu Lys Met Leu Met Gln Asn Arg 360 Ile Pro Tyr Lys Ile Ser Gly Gly Thr Ser Phe Phe Ser Arg Pro Glu 375 380 Ile Lys Asp Leu Leu Ala Tyr Leu Arg Val Leu Thr Asn Pro Asp Asp 390 395 Asp Ser Ala Phe Leu Arg Ile Val Asn Thr Pro Lys Arg Glu Ile Gly 405 410 Ser Ala Thr Leu Gln Lys Leu Gly Glu Trp Ala Met Thr Arg Asn Lys 425 Ser Leu Phe Thr Ala Ser Phe Asp Met Gly Leu Ser Gln Thr Leu Thr 440 Gly Arg Gly Tyr Glu Ala Leu Thr Arg Phe Thr His Trp Leu Gly Glu 455 Val Gln Arg Leu Ala Glu Arg Glu Pro Val Ala Ala Val Arg Asp Leu 470 475 Ile His Gly Ile Asp Tyr Glu Ser Trp Leu Tyr Glu Thr Ser Ala Ser 490 Pro Lys Ala Ala Glu Met Arg Met Lys Asn Val Asn Gln Leu Phe Ser 505 Trp Met Thr Glu Met Leu Glu Gly Ser Glu Ile Asp Glu Pro Met Thr 520 525 Leu Thr Gln Val Val Thr Arg Phe Thr Leu Arg Asp Met Met Glu Arg 540 535 Gly Glu Ser Glu Glu Glu Ala Asp Gln Val Gln Leu Met Thr Leu His 550 555 Ala Ser Lys Gly Leu Glu Phe Pro Tyr Val Tyr Leu Val Gly Met Glu 570 565 Glu Gly Leu Leu Pro His Gln Ser Ser Ile Asp Glu Asp Asn Val Asp 585 580 590 Glu Glu Arg Arg Leu Ala Tyr Val Gly Ile Thr Arg Ala Gln Lys Glu 600 Leu Thr Phe Thr Leu Cys Lys Glu Arg Arg Gln Tyr Gly Glu Leu Val 615 Arg Pro Glu Pro Ser Arg Phe Leu Leu Glu Leu Pro Gln Asp Asp Leu 630 635 Ile Trp Glu Gln Glu Arg Lys Val Ile Thr Ala Glu Glu Arg Met His

645 650 Lys Gly Gln Ala Asn Val Ala Asn Ile Arg Ala Met Leu Ala Lys Ala 660 665 Lys Glu Lys Gly 675 <210> 6656 <211> 166 <212> PRT <213> Enterobacter cloacae <400> 6656 Glu Gln Ser Ile Val Asn Leu Leu Thr Ala Val Thr Glu Leu Ile Ser 10 Ile Phe Leu Phe Thr Thr Cys Phe Leu Phe Ile Ala Arg Lys Val Ala 25 Lys Arg Ile Gly Leu Val Asp Lys Pro Asn Phe Arg Lys Arg His Gln 40 Gly Leu Ile Pro Leu Val Gly Gly Ile Ser Val Tyr Ala Gly Ile Cys 5.5 60 Phe Thr Phe Gly Ile Ala Asp Tyr Tyr Ile Pro His Ala Ala Leu Tyr 70 75 Leu Ala Cys Ala Gly Val Leu Val Leu Val Gly Ala Leu Asp Asp Arg 90 85 Phe Asp Ile Ser Val Lys Phe Arg Ala Thr Val Gln Ala Ala Ile Gly 105 100 Ile Ile Met Met Val Val Gly Gly Leu Tyr Leu Arg Ser Leu Gly Tyr 120 Val Phe Gly Pro Trp Glu Leu Val Leu Gly Pro Phe Gly Phe Phe Leu 135 140 Thr Leu Phe Ala Val Trp Ala Ala Ile Val Phe Thr Asp Arg Gly Arg 150 155 Lys Glu Thr Arg Met Arg 165 <210> 6657 <211> 446 <212> PRT <213> Enterobacter cloacae <400> 6657 Thr Gly Met Asp Asp Pro Ala Ile Pro Phe Thr Thr Leu Ser Ser Arg 10 Ile Thr Pro Ser Leu Arg Thr His Thr Ile Met Asn Leu Thr Glu Leu Lys Asn Thr Pro Val Ser Glu Leu Ile Thr Leu Gly Glu Asn Met Gly Leu Glu Asn Gln Ala Arg Met Arg Lys Gln Asp Ile Ile Phe Ala Ile 5.5 Leu Lys Gln His Ala Lys Ser Gly Glu Asp Ile Phe Gly Asp Gly Val 70 75 Leu Glu Ile Leu Gln Asp Gly Phe Gly Phe Leu Arg Ser Ala Asp Ser 85 90 Ser Tyr Leu Ala Gly Pro Asp Asp Ile Tyr Val Ser Pro Ser Gln Ile 105 Arg Arg Phe Asn Leu Arg Thr Gly Asp Thr Ile Ser Gly Lys Ile Arg 115 120 Pro Pro Lys Glu Gly Glu Arg Tyr Phe Ala Leu Leu Lys Val Asn Glu 135 140 Val Asn Tyr Asp Lys Pro Glu Asn Ser Arg Asn Lys Ile Leu Phe Glu 150 155

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Asn Leu Thr Pro Leu His Ala Asn Ser Arg Leu Arg Met Glu Arg Gly
                165
                                    170
Asn Gly Ser Thr Glu Asp Leu Thr Ala Arg Val Leu Asp Leu Ala Ser
                                185
Pro Ile Gly Arg Gly Gln Arg Gly Leu Ile Val Ala Pro Pro Lys Ala
                            200
Gly Lys Thr Met Leu Leu Gln Asn Ile Ala Gln Ser Ile Ala Tyr Asn
                        215
                                            220
His Pro Asp Cys Val Leu Met Val Leu Leu Ile Asp Glu Arg Pro Glu
                    230
                                        235
Glu Val Thr Glu Met Gln Arg Leu Val Lys Gly Glu Val Val Ala Ser
                                    250
                245
Thr Phe Asp Glu Pro Ala Ser Arg His Val Gln Val Ala Glu Met Val
                                                     270
            260
                                265
Ile Glu Lys Ala Lys Arg Leu Val Glu His Lys Lys Asp Val Ile Ile
        275
                            280
                                                285
Leu Leu Asp Ser Ile Thr Arg Leu Ala Arg Ala Tyr Asn Thr Val Val
                        295
                                            300
Pro Ala Ser Gly Lys Val Leu Thr Gly Gly Val Asp Ala Asn Ala Leu
                    310
                                        315
His Arg Pro Lys Arg Phe Phe Gly Ala Ala Arg Asn Val Glu Glu Gly
                325
                                    330
Gly Ser Leu Thr Ile Ile Ala Thr Ala Leu Ile Asp Thr Gly Ser Lys
                                345
Met Asp Glu Val Ile Tyr Glu Glu Phe Lys Gly Thr Gly Asn Met Glu
                            360
                                                 365
Leu His Leu Ser Arg Lys Ile Ala Glu Lys Arg Val Phe Pro Ala Ile
                        375
                                            380
Asp Tyr Asn Arg Ser Gly Thr Arg Lys Glu Glu Leu Leu Thr Thr Gln
                                        395
                    390
Glu Glu Leu Gln Lys Met Trp Ile Leu Arg Lys Ile Ile His Pro Met
                                    410
Gly Glu Ile Asp Ala Met Glu Phe Leu Ile Asn Lys Leu Ala Met Thr
                                425
Lys Thr Asn Asp Asp Phe Phe Asp Met Met Lys Arg Ser
                            440
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<210> 6658

<211> 175

<212> PRT

<213> Enterobacter cloacae

<400> 6658

Val Lys Val Val Ile Met Gly Gln Asp Pro Tyr His Gly Pro Gly Gln 10 Ala His Gly Leu Ala Phe Ser Val Arg Pro Gly Val Ala Ile Pro Pro 25 Phe Leu Leu Asn Met Tyr Lys Glu Leu Glu Gly Thr Ile Pro Gly Phe 40 Thr Arg Pro Asn His Gly Tyr Leu Glu Ser Trp Ala Arg Gln Gly Val 55 60 Leu Leu Leu Asn Thr Val Leu Thr Val Arg Ala Gly Gln Ala His Ser 70 75 His Ala Ser Leu Gly Trp Glu Thr Phe Thr Asp Lys Val Ile Ser Leu 90 Ile Asn Glu His Arg Glu Gly Val Val Phe Leu Leu Trp Gly Ser His 105 Ala Gln Lys Lys Gly Ala Ile Ile Asp Arg Gln Arg His His Val Leu 120 125 Lys Ala Pro His Pro Ser Pro Leu Ser Ala His Arg Gly Phe Phe Gly 135

Ser Asn His Phe Val Leu Thr Asn Glu Trp Leu Glu Lys Arg Gly Glu 150 155 Lys Pro Ile Asp Trp Met Pro Val Leu Pro Ala Glu Ser Glu 165 170 175 <210> 6659 <211> 295 <212> PRT <213> Enterobacter cloacae <400> 6659 Lys Ile Ser Val Trp Arg Gly Arg Leu Thr Thr Pro Phe Pro Phe Gly 10 Phe Phe Ser Arg Leu Leu Pro Phe Phe Asp Lys Ile Thr Thr Gln Ile 20 25 Thr Met Leu Ile Ile Asp Leu Asp Asn Lys Ile His Arg Lys Asn Met 40 4.5 Met Lys His Ile Ser Gly Lys Ala Ala Leu Leu Ala Leu Ser Met Ile 50 55 Ser Ala Thr Ala Tyr Ala Ser His Trp Ser Tyr Gln Gly Glu Gly Ala 70 75 Pro Glu His Trp Gly Glu Leu Asp Glu Ala Tyr Lys Thr Cys Lys Ser 85 90 Gly Met Tyr Gln Ser Pro Val Asn Ile Asp Asn Thr Val Lys Ala His 100 105 110 Ile Ser Pro Leu Glu Thr His Tyr Ile Asp Gly Pro Val Ile Leu Thr 120 Asn Asn Gly His Thr Ile Gln Ala Ser Glu Asn Ala Asp Thr Arg Asp 135 Ser Ile Thr Leu Asp Lys Gln Arg Trp Thr Leu Gln Gln Phe His Phe 150 His Ala Pro Ser Glu Asn Thr Val His Gly Lys Lys Tyr Ala Met Glu 170 Met His Leu Val His Lys Asn Ala Asp Gly Glu Leu Thr Val Val Ala 185 Val Met Phe Asp Gln Gly Ala Ala Asn Thr Glu Leu Asp Lys Leu Trp 200 205 Gly Val Met Pro Gly Gln Val Asp Gln Asn Val Thr Ile Lys Pro Thr 215 220 Leu Asp Met Asn Lys Leu Leu Pro Ala Asp Lys Thr Tyr Trp Arg Phe 230 235 Ser Gly Ser Leu Thr Thr Pro Pro Cys Ser Glu Gly Val Thr Trp Leu 245 250 Val Leu Lys His Pro Leu Thr Val Ser Ala Glu Gln Leu Gln Lys Phe 265 Thr His Thr Leu His His Glu Asn Ser Arg Pro Val Gln Pro Leu His 280 275 Gly Arg Leu Val Val Glu 295 290 <210> 6660 <211> 383 <212> PRT <213> Enterobacter cloacae <400> 6660 Gly Thr Val Met Thr Asn His Phe Arg Cys Leu Pro Leu Ser Gly Phe Ile Val Cys Ala Ala Leu Leu Thr Gly Cys Asp Gly Gln Glu Asn Pro

Gln Gln His Ala Gln Ala Pro Gln Val Ser Val His Ile Val Lys Ser

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40
Ala Pro Leu Ala Val Thr Thr Glu Leu Pro Gly Arg Thr Asp Ala Tyr
Arg Val Ala Glu Val Arg Pro Gln Val Ser Gly Ile Ile Leu His Arg
                                         75
                    70
Asn Phe Thr Glu Gly Ser Asp Val Lys Ala Gly Glu Ser Leu Tyr Gln
                85
                                    90
Ile Asp Pro Ala Thr Tyr Gln Ala Ala Tyr Asp Asn Ala Lys Gly Glu
            100
                                105
                                                     110
Leu Val Lys Ala Gln Ala Ala Ala Asn Ile Ala His Leu Thr Val Lys
                                                 125
        115
                            120
Arg Tyr Val Pro Leu Val Gly Thr Gln Tyr Val Ser Lys Gln Glu Tyr
                        135
                                             140
    130
Asp Gln Ala Val Ala Thr Ala Gln Gln Ala Asp Ala Ser Val Val Ala
                                         155
                    150
Ala Lys Ala Gly Val Glu Ser Ala Arg Ile Asn Leu Ala Tyr Thr Lys
                165
                                    170
Val Thr Ser Pro Ile Asn Gly Arg Ile Gly Lys Ser Ser Val Thr Glu
            180
                                185
                                                     190
Gly Ala Leu Val Thr Asn Gly Gln Ser Thr Ala Leu Ala Thr Val Gln
        195
                            200
Gln Leu Asp Pro Ile Tyr Val Asp Val Thr Gln Ser Ser Ser Asp Phe
                        215
                                             220
Met Arg Leu Lys Gln Gln Thr Ser Leu Gln Lys Gly Asp Thr Ser Ser
                    230
                                         235
Val Glu Leu Leu Met Glu Asn Gly Gln Pro Tyr Pro Leu Lys Gly Thr
                                     250
Leu Gln Phe Ser Asp Val Thr Val Asp Glu Ser Thr Gly Ser Ile Thr
                                265
Leu Arg Ala Leu Phe Pro Asn Pro Gln His Met Leu Leu Pro Gly Met
                            280
Phe Val Arg Ala Arg Ile Asp Glu Gly Thr Gln Pro Asp Ala Ile Leu
                        295
Val Pro Gln Gln Gly Val Thr Arg Thr Pro Arg Gly Asp Ala Thr Val
                    310
                                         315
Leu Val Val Asn Asp Lys Asn Gln Val Glu Ser Arg Thr Val Val Ala
                325
                                     330
Pro Gln Ala Ile Gly Asp Arg Trp Leu Ile Thr Glu Gly Leu Lys Asn
                                345
            340
Gly Asp Arg Val Ile Ile Ser Gly Leu Gln Lys Val Arg Pro Gly Val
        355
                            360
Thr Val Val Ala Ile Pro Asp Thr Ala Ala Thr Pro Ala Ser
                        375
<210> 6661
<211> 425
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(125)
<220>
<221>UNSURE
<222>(135)
<400> 6661
Asp Lys Ile Val Asp Val His Ser Ser Ala Asp Arg Asp Leu Lys His
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Val Leu Leu Ala Asp Glu Thr Val Cys Ile Gly Pro Ala Pro Ser Val

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20
                                25
Lys Ser Tyr Leu Asn Ile Pro Ala Ile Ile Ser Ala Ala Glu Ile Thr
                            40
                                                4.5
Gly Ala Val Ala Ile His Pro Gly Tyr Gly Phe Leu Ser Glu Asn Ala
                        55
                                             60
Asn Phe Ala Glu Gln Val Glu Arg Ser Gly Phe Ile Phe Ile Gly Pro
                    70
                                        75
Lys Ala Asp Thr Ile Arg Leu Met Gly Asp Lys Val Ser Ala Ile Thr
                                    90
Ala Met Lys Lys Ala Gly Val Pro Thr Val Pro Gly Ser Asp Gly Pro
                                105
Leu Thr Asp Asp Met Asp Ala Asn Arg Ala His Ala Xaa Arg Ile Gly
                            120
Tyr Pro Val Ile Ile Lys Xaa Ser Gly Arg Arg Gly Gly Arg Gly Met
                        135
                                            140
Arg Val Val Arg Ser Asp Ala Glu Leu Ala Gln Ser Ile Ser Met Thr
                    150
                                        155
Lys Ala Glu Ala Lys Ala Ala Leu Ser Asn Asp Met Val Tyr Met Glu
                                    170
                165
Lys Tyr Leu Glu Asn Pro Arg His Ile Glu Ile Gln Val Leu Ala Asp
            180
                                185
Gly Gln Gly Asn Ala Ile Tyr Leu Ala Glu Arg Asp Cys Ser Met Gln
       195
                            200
                                                 205
Arg Arg His Gln Lys Val Val Glu Glu Ala Pro Ala Pro Gly Ile Thr
                        215
                                            220
Pro Glu Leu Arg Arg Tyr Ile Gly Glu Arg Cys Ala Lys Ala Cys Val
                    230
                                        235
Asp Ile Gly Tyr Arg Gly Ala Gly Thr Phe.Glu Phe Leu Phe Glu Asn
                245
                                    250
Gly Glu Phe Tyr Phe Ile Glu Met Asn Thr Arg Ile Gln Val Glu His
            260
                                265
Pro Val Thr Glu Met Ile Thr Gly Val Asp Leu Ile Lys Glu Gln Leu
                            280
                                                 285
Arg Ile Ala Ala Gly Gln Pro Leu Ser Ile Lys Gln Glu Glu Val Val
                        295
                                            300
Val Lys Gly His Ala Val Glu Cys Arg Ile Asn Ala Glu Asp Pro Asn
                    310
Thr Phe Leu Pro Ser Pro Gly Lys Ile Thr Arg Phe His Ala Pro Gly
                325
                                    330
Gly Phe Gly Val Arg Trp Glu Ser His Ile Tyr Ala Gly Tyr Thr Val
                                345
Pro Pro Tyr Tyr Asp Ser Met Ile Gly Lys Leu Ile Cys Tyr Gly Glu
                            360
Asn Arg Asp Val Ala Ile Ala Arg Met Lys Asn Ala Leu Gln Glu Leu
                        375
Ile Ile Asp Gly Ile Lys Thr Asn Val Asp Leu Gln Met Arg Ile Met
                    390
                                        395
Ser Asp Glu His Phe Gln Asn Gly Gly Thr Asn Ile His Tyr Leu Glu
                                    410
                405
Lys Lys Leu Gly Leu Asn Glu Lys
                                425
            420
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<210> 6662

<211> 97

<212> PRT

<213> Enterobacter cloacae

<400> 6662

Ala Pro Ser Cys Thr Ile Pro Ala Phe Phe Ile His Lys Gly Gln Lys
1 5 10 15
Met Asp Lys Arg Phe Val Gln Ala His Lys Glu Ala Arg Trp Ala Leu

<210> 6664 <211> 104 <212> PRT

<213> Enterobacter cloacae

| Trp | Leu | Thr | Leu | Leu | Tyr | Leu | Ala | Ala | Trp | Leu | Val | Thr | Ala | Tyr | Leu | Ala | Ala | Trp | Leu | Val | Thr | Ala | Tyr | Leu | Ala | Ala | Trp | Leu | Ala | Trp | Ala | Trp | Leu | Ala | Trp | Ala | Ala | Trp | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala | Ala

<210> 6663 <211> 300 <212> PRT <213> Enterobacter cloacae <400> 6663 Gln Ile Lys Ser Phe Ala Met Pro Trp Ile Gln Leu Lys Leu Asn Thr 10 Thr Gly Ala Asn Ala Glu Glu Leu Ser Asp Ala Leu Met Glu Ala Gly 25 Ser Val Ser Ile Thr Phe Gln Asp Thr His Asp Thr Pro Val Phe Glu 40 Pro Leu Pro Gly Glu Thr Arg Leu Trp Gly Asp Thr Asp Val Ile Gly 55 Leu Phe Asp Ala Glu Thr Asp Met Lys Glu Val Val Ala Ile Leu Glu 70 75 Asn His Pro Leu Gly Ala Gly Phe Thr His Lys Ile Glu Gln Leu 90 Glu Asp Lys Asp Trp Glu Arg Glu Trp Met Asp Asn Phe His Pro Met 100 105 110 Gln Phe Gly Gln Arg Leu Trp Ile Cys Pro Ser Trp Arg Glu Val Pro 120 125 Asp Glu Asn Ala Val Asn Val Met Leu Asp Pro Gly Leu Ala Phe Gly 135 140 Thr Gly Thr His Pro Thr Thr Ser Leu Cys Leu Gln Trp Leu Asp Gly 150 155 Leu Asp Leu Glu Gly Lys Thr Val Ile Asp Phe Gly Cys Gly Ser Gly 165 170 Ile Leu Ala Ile Ala Ala Leu Lys Leu Gly Ala Ala Lys Ala Ile Gly 185 Ile Asp Ile Asp Pro Gln Ala Ile Gln Ala Ser Arg Asp Asn Ala Glu 200 205 Arg Asn Gly Val Ser Asp Arg Leu Glu Leu Tyr Leu Pro Asp Ala Gln 215 220 Pro Glu Ala Met Lys Ala Asp Val Val Val Ala Asn Ile Leu Ala Gly 230 235 Pro Leu Arg Glu Leu Ala Pro Leu Ile Ser Val Leu Pro Val Glu Gly . 245 250 Gly Leu Leu Gly Leu Ser Gly Ile Leu Ala Ser Gln Ala Asp Ser Val 270 265 260 Cys Glu Ala Tyr Ala Asp Leu Phe Ala Leu Asp Pro Val Val Glu Lys 285 280 Glu Glu Trp Cys Arg Ile Thr Gly Arg Lys Lys 300 295

<400> 6664 Arg Ala Asp Arg Thr Met Phe Glu Gln Arg Val Asn Ser Asp Val Leu 10 Thr Val Ser Thr Val Asn Ser Gln Asp Gln Val Thr Gln Lys Pro Leu 25 Arg Asp Ser Val Lys Gln Ala Leu Lys Asn Tyr Phe Ala Gln Leu Asn Gly Gln Asp Val Asn Asp Leu Tyr Glu Leu Val Leu Ala Glu Val Glu 55 Gln Pro Leu Leu Asp Met Val Met Gln Tyr Thr Arg Gly Asn Gln Thr 70 75 Arg Ala Ala Leu Met Met Gly Ile Asn Arg Gly Thr Leu Arg Lys Lys 90 Leu Lys Lys Tyr Gly Met Asn 100 <210> 6665 <211> 751 <212> PRT <213> Enterobacter cloacae <400> 6665 Thr Gly Gln Leu Leu Arg Ala Gly Leu Thr Ala Ser Ile Leu Tyr Lys 10 Thr Leu Leu Thr Pro Asn Lys Asn Arg Gly Leu Asn His Phe Ser Ser 25 Phe Pro Asp Asp Asn Val Cys Pro Leu Ser Asn Arg Ser Cys Leu 40 45 Thr Ser His Thr Ser Glu Gln Thr Met Leu Val Ser Gln Tyr Asn Gln 5.5 Ile Leu Val Val Ile Ser Phe Val Val Ala Ile Leu Ala Ala Tyr Thr 70 7.5 Ala Leu Asn Met Ala Ala Arg Val Ala Gly Ser Gln Gly Val Ala Ala 85 90 Arg Val Trp Leu Ala Gly Gly Gly Val Ser Met Gly Ile Gly Val Trp 100 105 Ala Met His Phe Ile Gly Met Leu Ala Met Asp Leu Ser Met Ser Met 120 Ser Tyr Asn Ala Ala Leu Thr Val Leu Ser Met Val Ile Ala Ile Ser 135 140 Ser Ser Met Phe Ala Leu Trp Leu Val Ser Gly Glu Gln Leu Arg Leu 150 155 Arg Arg Leu Leu Pro Gly Ala Val Val Met Gly Thr Gly Ile Val Ala 170 165 Met His Tyr Thr Gly Met Ala Ala Leu Glu Val Thr Pro Gly Ile Val 185 Trp Asp Lys Thr Trp Val Ala Ile Ser Val Val Ile Ala Leu Ala Ala 200 Ser Leu Ala Ala Leu Trp Leu Thr Phe Arg Leu Arg Gln Glu Ala Ala 215 220 Arg Met Ala Leu Met Arg Leu Gly Ala Ala Ile Thr Met Gly Ile Ala

Ile Ala Gly Met His Tyr Ala Gly Met Glu Ala Ala Gln Phe Pro Met

Ser Thr Met Val His His Gly Ile Asn Gly Ser Trp Leu Ala Ile

280 Ser Met Phe Asp Ala Arg Leu Gln Ala Arg Thr Ser Leu Leu Ala Ser

295

265 Leu Val Ser Val Val Ala Leu Ala Ile Leu Gly Ile Thr Leu Leu Val

230

245

260

290

235

285

300

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Ser Leu Ala Glu Ala Asn Arg Glu Leu Ala Gln Leu Ala Leu His Asp
                    310
                                        315
Thr Leu Thr Arg Leu Pro Asn Arg Ile Leu Leu Glu Asp Arg Leu Asp
                325
                                    330
Gln Ala Ile Ser Lys Ala Asp Arg Glu Gly Ser Pro Phe Ala Leu Met
                                345
Phe Met Asp Leu Asp Gly Phe Lys Thr Val Asn Asp Ala Tyr Gly His
                            360
Asp Val Gly Asp Lys Leu Leu Val Ala Val Thr Gln Arg Leu Leu
    370
                        375
                                            380
Gln Leu Lys Gly Gln Tyr Thr Leu Ala Arg Ile Gly Gly Asp Glu Phe
                    390
                                        395
Val Leu Leu Ala Glu Thr Ala Thr Pro Asp Asp Ala Ala Ser Leu Ala
                405
                                    410
Asn Ser Leu Val Arg Val Ile Asp Ser Pro Phe His Leu Asp Pro Tyr
            420
                                425
Glu Leu Met Val Thr Leu Ser Ile Gly Ile Ala Leu Tyr Pro His Asp
                            440
Gly Lys Thr Asp Arg Glu Leu Met Phe Asn Ala Asp Ala Ala Met Tyr
His Thr Lys His Met Gly Arg Asn Gly Tyr His Phe Phe Gln Pro Ser
                    470
Met Asn Thr Leu Ala Gln Thr His Leu Gln Leu Met Asn Asp Leu Trp
               485
                                    490
Gln Ala Ile Asp Arg Asp Glu Leu Arg Leu Leu Tyr Gln Pro Lys Phe
                                505
His Ala Pro Ala Gly Pro Val Ile Gly Phe Glu Ala Leu Leu Arg Trp
                            520
Gln His Pro Lys Gln Gly Leu Leu Ser Pro Asp Leu Phe Leu Pro Leu
                        535
                                            540
Ala Glu Lys Thr Gly Leu Ile Ile Pro Ile Gly Asn Trp Val Ile Asp
                    550
                                        555
Glu Ala Cys Arg Gln Leu Arg Glu Trp His Leu Gln Gly His Thr Asp
                565
                                    570
Trp Ser Met Ala Val Asn Leu Ser Thr Leu Gln Phe Glu Gln Pro Ser
           580
                                585
Leu Val Lys Thr Val Leu Asp Cys Leu Thr Arg His Ser Val Pro Pro
       595
                            600
                                                605
Gly Met Leu Ile Leu Glu Val Thr Glu Thr Thr Ala Met Ser Asn Pro
                        615
                                            620
Asp Glu Ser Val Arg Val Leu Thr Ala Leu Thr Asp Ala Gly Val Lys
                    630
                                        635
Ala Ser Ile Asp Asp Phe Gly Thr Gly Tyr Ser Ser Leu Leu Tyr Leu
                                    650
               645
Lys Arg Leu Pro Ala Cys Glu Leu Lys Ile Asp Arg Ala Phe Val Lys
                                665
                                                    670
           660
Glu Leu Ser Gly Glu Ser Glu Asp Ala Thr Ile Val Ser Ala Ile Val
                            680
                                                685
Ala Leu Ala Lys Thr Leu Asn Leu Lys Val Ala Glu Gly Val Glu
                        695
                                            700
Thr Ala Ala Gln Gln Thr Phe Leu Thr Glu Leu Gly Cys Asn Thr Leu
                                        715
Gln Gly Tyr Leu Leu Gly Lys Pro Ile Thr Ala Gln Ala Ile Met Glu
                                   730
Gln Cys Gln His Gly Glu Met Ser Pro Pro Arg Ala Gln Ser
                                745
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<sup>&</sup>lt;210> 6666

<sup>&</sup>lt;211> 496

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6666 Asn Ser Ser Ile Ala Ile Phe His Trp Arg Thr Met Met Gln Leu Glu 10 Val Ile Leu Pro Leu Ile Ala Tyr Leu Cys Leu Val Phe Gly Leu Ser Val Tyr Ala Met Arg Lys Arg Ser Thr Gly Thr Phe Leu Asn Glu Tyr Phe Leu Gly Ser Arg Ser Met Gly Gly Val Val Leu Ala Met Thr Leu 55 Thr Ala Thr Tyr Ile Ser Ala Ser Ser Phe Ile Gly Gly Pro Gly Ala 70 Ala Tyr Lys Tyr Gly Leu Gly Trp Val Leu Leu Ala Met Ile Gln Leu 8.5 90 Pro Ala Ile Trp Leu Ser Leu Gly Ile Leu Gly Lys Lys Phe Ala Ile 100 105 Leu Ala Arg Arg Tyr Asn Ala Val Thr Leu Asn Asp Met Leu Phe Ala 120 Arg Tyr Gln Ser Arg Leu Leu Val Trp Leu Ala Ser Leu Ser Leu Leu 135 Val Ala Phe Ile Gly Ala Met Thr Val Gln Phe Ile Gly Gly Ala Arg 150 Leu Leu Glu Thr Ala Ala Gly Ile Pro Tyr Glu Thr Gly Leu Val Ile 165 170 Phe Gly Val Ser Ile Ala Leu Tyr Thr Ala Phe Gly Gly Phe Arg Ala 180 185 Ser Val Leu Asn Asp Thr Met Gln Gly Met Val Met Leu Ile Gly Thr 195 200 Leu Val Leu Leu Val Gly Ile Val His Ala Ala Gly Gly Leu Ser His 215 . 220 Ala Val Glu Thr Leu Glu Ala Ile Asp Pro Lys Leu Val Ser Pro Gln 230 235 Gly Ala Asp Asp Ile Leu Ser Pro Thr Phe Met Thr Ser Phe Trp Val 245 250 Leu Val Cys Phe Gly Val Ile Gly Leu Pro His Thr Ala Val Arg Cys · 265 Ile Ser Tyr Lys Asp Ser Lys Ala Val His Arg Gly Ile Ile Ile Gly 275 280 Thr Ile Val Val Ala Ile Leu Met Phe Gly Met His Leu Ala Gly Ala 295 Leu Gly Arg Ala Val Ile Pro Asp Leu Thr Val Pro Asp Leu Val Ile 310 315 Pro Thr Leu Met Val Lys Val Leu Pro Pro Phe Ala Ala Gly Ile Phe 325 330 Leu Ala Ala Pro Met Ala Ala Ile Met Ser Thr Ile Asn Ala Gln Leu 345 Leu Gln Ser Ser Ala Thr Ile Ile Lys Asp Leu Tyr Leu Asn Leu Arg 365 360 Pro Glu Gln Val Glu Asn Glu Arg Arg Leu Lys Arg Met Ser Ala Val 380 375 Ile Thr Leu Val Leu Gly Ala Leu Leu Leu Leu Ala Ala Trp Arg Pro 390 395 Pro Glu Met Ile Ile Trp Leu Asn Leu Leu Ala Phe Gly Gly Leu Glu 410 Ala Val Phe Leu Trp Pro Leu Val Leu Gly Leu Tyr Trp Glu Arg Ala 425 Asn Ala Ala Gly Ala Leu Ser Gly Met Ile Val Gly Gly Val Leu Tyr 440 Ala Val Leu Ala Thr Phe Lys Ile Gln Tyr Leu Gly Phe His Pro Ile 455 Val Pro Ser Leu Leu Ser Leu Leu Ala Phe Val Val Gly Asn Arg

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Phe Gly Arg Pro Val Pro Gln Thr Ala Leu Ile Ser Thr Asp Lys
<210> 6667
<211> 323
<212> PRT
<213> Enterobacter cloacae
<400> 6667
Leu Met Arg Ile Gly His His Gln Leu Arg Asn Arg Leu Ile Ala Ala
                                    10
Pro Met Ala Gly Ile Thr Asp Arg Pro Phe Arg Thr Leu Cys Tyr Glu
                                25
            20
Met Gly Ala Gly Leu Thr Val Ser Glu Met Met Ser Ser Asn Pro Gln
                            40
Val Trp Glu Ser Asp Lys Ser Arg Leu Arg Met Val His Val Asp Glu
                        55
Pro Gly Ile Arg Thr Val Gln Ile Ala Gly Ser Val Pro Glu Glu Met
                    70
                                        7.5
Ala Asp Ala Arg Ile Asn Val Glu Ser Gly Ala Gln Ile Ile Asp
                                    90
Ile Asn Met Gly Cys Pro Ala Lys Lys Val Asn Arg Lys Leu Ala Gly
                                105
Ser Ala Leu Leu Gln Tyr Pro Asp Gln Val Lys Ser Ile Leu Thr Ala
                            120
Val Val Ser Ala Val Asp Val Pro Val Thr Leu Lys Ile Arg Thr Gly
                        135
                                            140
Trp Ser Pro Glu His Arg Asn Cys Val Glu Ile Ala Gln Leu Ala Glu
                    150
                                        155
Asp Cys Gly Ile Gln Ala Leu Thr Ile His Gly Arg Thr Arg Ala Cys
                                    170
Leu Phe Asn Gly Glu Ala Glu Tyr Asp Ser Ile Arg Ala Val Lys Gln
                                185
Lys Val Ser Ile Pro Val Ile Ala Asn Gly Asp Ile Thr Asp Pro Leu
                            200
Lys Ala Arg Ala Val Leu Asp Tyr Thr Gly Ala Asp Ala Leu Met Ile
                        215
                                            220
Gly Arg Ala Ala Gln Gly Arg Pro Trp Ile Phe Arg Glu Ile Gln His
                    230
                                        235
Tyr Leu Asp Thr Gly Glu Leu Leu Ala Pro Leu Pro Leu Ala Glu Val
                245
                                    250
Lys Arg Leu Leu Cys Ser His Val Arg Glu Leu His Asp His Tyr Gly
                                265
Gln Ala Lys Gly Tyr Arg Ile Ala Arg Lys His Val Ser Trp Tyr Leu
       275
                            280
                                                285
Gln Glu His Ala Pro Asn Asp Gln Phe Arg Arg Thr Phe Asn Ala Ile
                                            300
                       295
Glu Asp Ala Ser Glu Gln Leu Glu Ala Leu Glu Ala Tyr Phe Glu Asn
305
                   310
                                        315
Leu Ala
```

<sup>&</sup>lt;210> 6668 -

<sup>&</sup>lt;211> 78

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;220>

<sup>&</sup>lt;221>UNSURE

<sup>&</sup>lt;222>(78)

```
<400> 6668
Tyr Arg Arg Asp Ser Ser Gln Leu Arg Asn Asp Met Ala Asn Phe
                                    10
Phe Ile Gln Arg Pro Val Phe Ala Trp Val Leu Ala Ile Ile Leu Met
                                25
Ile Ala Gly Gly Leu Ala Ile Leu Lys Leu Pro Val Ala Gln Tyr Pro
                            40
Thr Ile Ala Pro Pro Ala Val Ala Val Thr Ala Thr Tyr Pro Gly Ala
                        55
Asp Ala Gln Thr Val Gln Asp Thr Val Thr Gln Val Ile Xaa
<210> 6669
<211> 218
<212> PRT
<213> Enterobacter cloacae
<400> 6669
Gln Val Met Ala Arg Lys Lys Glu Glu Ala Gln Lys Thr Arg Gln
                                    10
Gln Leu Ile Glu Ala Ala Ile Arg Leu Phe Ala Thr Arg Gly Val Ala
            20
                                                     30
Ser Thr Thr Leu Thr Asp Ile Ala Asp Ala Ala Gln Leu Thr Arg Gly
Ala Val Tyr Trp His Phe Ser Ser Lys Ala Glu Ile Phe Asn Ala Ile
Trp Glu Gln Gln Leu Pro Leu Arg Glu Ile Ile Arg Asp Arg Leu Met
                    70
                                        75
Leu Ser Glu Asn Asp Asp Pro Leu Leu Met Leu Arg Glu Gln Phe Ile
                85
                                    90
Val Ala Leu Gln Tyr Ile Ala Ser Glu Pro Arg Gln Tyr Ala Leu Leu
                                105
                                                     110
Gln Ile Leu Tyr His Lys Cys Glu Phe His Asp Asp Val Ile Ser Glu
                            120
Cys Glu Ile Arg Lys Arg Ile Gly Leu Asn Asp Asp Tyr Leu Arg Lys
                        135
                                            140
Thr Leu Lys Arg Cys Ile Ala His Asn Ile Ile Ser Ser Gln Thr Asn
                    150
                                        155
Ile Glu Leu Ala Leu Ile Val Phe His Ala Phe Phe Ser Gly Val Ile
                                    170
Lys Asn Trp Leu Met Asp Asn Thr Ser Phe Asn Leu Tyr Lys Gln Ala
                                185
            180
Pro Ala Leu Val Asp Asn Ile Leu Ala Thr Leu Asn Ile Thr Arg Val
                            200
Ala Pro Val Val Tyr Asp Thr Ala Leu
                        215
<210> 6670
<211> 306
<212> PRT
<213> Enterobacter cloacae
<400> 6670
Thr Met Val Ala Gln Tyr Tyr Thr Asp Pro Glu Ile Gln Gln Leu Ala
                                    10
Glu Glu Thr Gly Gly Cys Ile Ser Asp Ser Leu Glu Met Ala Arg Phe
                                25
Gly Ala Lys His Pro Ala Ser Thr Leu Leu Val Ala Gly Val Arg Phe
                            40
Met Gly Glu Thr Ala Lys Ile Leu Ser Pro Glu Lys Thr Ile Leu Met
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Pro Thr Leu Asn Ala Asp Cys Ser Leu Asp Leu Gly Cys Pro Ile Asp Glu Phe Thr Ala Phe Cys Asp Ala His Pro Asp Arg Thr Val Val Val 85 90 Tyr Ala Asn Thr Ser Ala Ala Val Lys Ala Arg Ala Asp Trp Val Met 105 110 Thr Ser Ser Ile Ala Val Glu Leu Ile Glu His Leu Asp Ser Leu Gly 120 Glu Lys Ile Ile Trp Ala Pro Asp Arg His Leu Gly Asn Tyr Val Gln 135 140 Lys Gln Thr Gly Ala Asp Val Leu Cys Trp Gln Gly Ala Cys Ile Val 150 155 His Asp Glu Phe Lys Thr Gln Ala Leu Thr Arg Met Lys Gly Leu Tyr 165 170 Pro Asp Ala Ala Ile Leu Val His Pro Glu Ser Pro Gln Ser Ile Val 185 Asp Met Ala Asp Ala Val Gly Ser Thr Ser Gln Leu Ile His Ala Ala 200 Lys Thr Leu Pro Asn Lys Gln Leu Ile Val Ala Thr Asp Arg Gly Ile 215 Phe Tyr Lys Met Gln Gln Ala Val Pro Glu Lys Glu Leu Leu Glu Ala 230 235 Pro Thr Ala Gly Glu Gly Ala Ser Cys Arg Ser Cys Ala His Cys Pro 245 250 Trp Met Ala Met Asn Gly Leu Lys Ala Ile Ser Glu Ala Leu Glu Asn 265 Gly Gly Ala Ala His Glu Ile His Val Asp Ala Ala Leu Arg Glu Gly 280 Ala Leu Ile Pro Leu Asn Arg Met Leu Asp Phe Ala Ala Thr Leu Arg 295 Thr 305 <210> 6671 <211> 263

<211> 203

<213> Enterobacter cloacae

<400> 6671

Phe His Leu Thr Val Cys Trp Ile Leu Arg Leu His Tyr Val Leu Asn 10 Leu Leu Arg Pro Gly Glu Lys Met Asp Phe Phe Ser Thr Gln Asn Ile 25 Leu Val His Ile Pro Ile Gly Ala Gly Gly Tyr Asp Leu Ser Trp Ile 40 Glu Ala Val Gly Thr Leu Ala Gly Leu Leu Cys Ile Trp Leu Ala Ser 55 Leu Glu Lys Ile Ser Asn Tyr Ala Phe Gly Leu Ile Asn Val Thr Leu 75 Phe Ala Ile Ile Phe Phe Gln Ile Gln Leu Tyr Ala Ser Leu Leu Leu 85 Gln Leu Phe Phe Ala Ala Asn Ile Tyr Gly Trp Tyr Ala Trp Ser 105 Arg Gln Asn Ser Gln Gln Glu Ala Glu Leu Gln Ile Arg Trp Leu Pro 120 Leu Pro Lys Ala Ile Ala Trp Phe Ala Ala Cys Val Val Ala Ile Gly 135 140 Phe Met Thr Val Phe Ile Asp Pro Val Phe Ala Phe Leu Thr Arg Val 150 155 Ala Val Ser Val Met Ser Gly Leu Gly Leu Asn Val Thr Met Pro Glu

165 170 Leu Gln Pro Asp Ala Phe Pro Phe Trp Asp Ser Cys Met Met Val Leu 185 Ser Ile Ala Ala Met Ile Leu Met Thr Arg Lys Tyr Val Glu Asn Trp 200 205 Leu Leu Trp Val Val Ile Asn Val Ile Ser Val Val Ile Phe Ala Arg 220 215 Gln Gly Val Tyr Ala Met Ser Leu Glu Tyr Met Leu Leu Thr Phe Ile 230 235 Ala Leu Asn Gly Ser Arg Met Trp Ile Asn Ser Ala Arg Glu Arg Gly 250 245 Ser Arg Ala Leu Ser Arg 260

<210> 6672 <211> 359 <212> PRT

<213> Enterobacter cloacae

<400> 6672 Arg Tyr Gly Arg Ala Gly Lys Lys Met Asn Tyr Gln Asn Asp Asp Leu 10 Arg Ile Lys Glu Ile Asn Glu Leu Leu Pro Pro Val Ala Leu Leu Glu 25 Lys Phe Pro Ala Thr Glu Asn Ala Ala Asn Thr Val Ser His Ala Arg Lys Ala Ile His Lys Ile Leu Lys Gly Ser Asp Asp Arg Leu Leu Val 60 Val Ile Gly Pro Cys Ser Ile His Asp Pro Ala Ala Ala Lys Glu Tyr 70 75 Ala Ser Arg Leu Leu Ala Leu Arg Glu Glu Leu Lys Gly Glu Leu Glu 90 Ile Val Met Arg Val Tyr Phe Glu Lys Pro Arg Thr Thr Val Gly Trp 100 105 Lys Gly Leu Ile Asn Asp Pro His Met Asp Asn Ser Phe Gln Ile Asn 115  $\cdot 120$ Asp Gly Leu Arg Ile Ala Arg Lys Leu Leu Glu Ile Asn Asp Ser 135 140 Gly Leu Pro Ala Ala Gly Glu Phe Leu Asp Met Ile Thr Pro Gln Tyr 150 155 Leu Ala Asp Leu Met Ser Trp Gly Ala Ile Gly Ala Arg Thr Thr Glu 170 165 Ser Gln Val His Arg Glu Leu Ala Ser Gly Leu Ser Cys Pro Val Gly 190 180 185 Phe Lys Asn Gly Thr Asp Gly Thr Ile Lys Val Ala Ile Asp Ala Ile 200 205 Asn Ala Ala Gly Ala Pro His Cys Phe Leu Ser Val Thr Lys Trp Gly 220 215 His Ser Ala Ile Val Asn Thr Ser Gly Asn Gly Asp Cys His Ile Ile 235 230 Leu Arg Gly Gly Lys Glu Pro Asn Tyr Ser Ala Lys His Val Ala Glu 245 250 Val Lys Ala Gly Leu Glu Lys Ala Gly Leu Ala Pro Gln Val Met Ile 265 270 Asp Phe Ser His Ala Asn Ser Ser Lys Gln Phe Lys Lys Gln Met Glu 280 285 Val Gly Ala Asp Val Cys Gln Gln Ile Ala Ser Gly Glu Arg Ala Val 300 295 Ile Gly Val Met Ile Glu Ser His Leu Val Glu Gly Asn Gln Asn Leu 310 315 Glu Gly Ser Glu Pro Leu Val Tyr Gly Lys Ser Val Thr Asp Ala Cys

325 330 Ile Gly Trp Asp Asp Thr Asp Ala Ile Leu Arg Gln Leu Ala Asp Ala 340 345 Val Lys Ala Arg Arg Gly 355 <210> 6673 <211> 371 <212> PRT <213> Enterobacter cloacae <400> 6673 Thr Val Arg Ser Gln Asn Gly His Gln Arg Asn Phe Leu Cys Leu Gln Ser Ile Thr Arg Ser Arg Thr Val Leu Asn Glu Thr Pro Thr Leu Ala 25 20 Pro Asp Gly Leu Pro Tyr Arg Leu Leu Thr Leu Arg Asn Ser Ala Gly 40 Met Val Val Thr Leu Met Asp Trp Gly Ala Thr Leu Leu Ser Ala Arg 55 Val Pro Met Pro Asp Gly Ser Val Arg Glu Thr Leu Leu Gly Cys Ala 70 Ser Pro Glu Gln Tyr Ile Glu Gln Thr Ala Phe Leu Gly Ala Ser Ile 85 90 Gly Arg Tyr Ala Asn Arg Ile Ala Arg Ser Arg Phe Thr Leu Asp Gly 100 105 Val Thr Tyr Ser Leu Leu Ala Ser Gln Gly Glu Asn Gln Leu His Gly 120 Gly Pro Glu Gly Phe Asp Lys Arg Arg Trp Lys Ile Val Gln Gln Asn 135 140 Asp Ala Glu Val Trp Phe Ser Leu Asp Ser Leu Asp Gly Asp Gln Gly 150 Phe Pro Gly Asn Leu Thr Ala Thr Ala Arg Phe Thr Leu Thr Glu Asp 170 Asn Arg Ile Ala Ile Glu Tyr Arg Ala Thr Val Asp Lys Pro Cys Pro 185 Val Asn Leu Thr Asn His Ala Tyr Phe Asn Leu Asp Gly Asn Gln Thr 200 205 Asp Val Arg Ser His Lys Leu Gln Ile Leu Ser Asp Glu Tyr Leu Pro 215 220 Val Asp Glu Met Gly Ile Pro Tyr Gln Gly Leu Lys Pro Val Ser Gly 230 235 Asn Ser Phe Asp Phe Arg Gln Pro Lys Thr Ile Ala Gln Asp Phe Leu 245 250 Ser Asp Asp Gln Arg Lys Val Lys Gly Tyr Asp His Ala Phe Leu 265 Leu Gln Ala Lys Gly Asp Leu Ser Gln Pro Ala Ala Gln Val Trp Ser 280 285 Ala Asp Glu Lys Leu Gln Met Thr Val Tyr Thr Thr Ala Pro Ala Leu 295 300 Gln Phe Tyr Ser Gly Asn Tyr Leu Glu Gly Thr Thr Ala Arg Glu His 315 310 Asp Ala Tyr Gly Ala Trp Gln Gly Leu Ala Leu Glu Ser Glu Phe Leu 325 . 330 Pro Asp Ser Pro Asn His Pro Glu Trp Pro Gln Pro Asp Cys Val Leu 345 350 Arg Pro Gly Glu Glu Tyr Val Ser Val Thr Glu Tyr His Phe Ile Pro 360 Arg Ala

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<210> 6674
<211> 149
<212> PRT
<213> Enterobacter cloacae
<400> 6674
Phe Arg Ser Pro Glu Ser Phe Ala Thr Glu Gln Asp Ala Leu Leu Glu
Asn Val Ile Gln Arg Asn Asp Lys Asn Arg Ser Thr Met Met Lys Met
                                25
Thr Lys Leu Thr Thr Leu Phe Leu Thr Ala Thr Leu Thr Leu Ala Ser
                            40
Gly Ser Val Leu Ala Ala Asp Ala Gly Ser Ser Gly Ser Asn Gly Asp
                        55
Ala Asn Ala Ala Ala Glu Ala Gly Gln Val Ala Pro Asp Ala Lys Gln
                                        75
Asn Ile Ala Pro Asn Asn Val Asp Asn Ser Asn Ile Asn Thr Gly Asn
                                    90
                85
Thr Asn Thr Gly Gly Thr Asn Thr Gly Thr Met Asn His Glu Gly Met
            100
                                105
Thr Thr Asp Glu Val His Lys Asn Ser Val Cys Lys Asp Gly Lys Cys
                                         125
                            120
Pro Asp Pro Asn Asp Lys Val Gly Ser Asp Ala Asn Thr Lys Thr Asp
                        135
Gly Thr Thr Gln
145
<210> 6675
<211> 318
<212> PRT
<213> Enterobacter cloacae
<400> 6675
Ile Arg Asn Asp Thr Met Ala His Ser His Ser His Ser His Ser Thr
                                    10
Gly Asp Glu Asn Ala Lys Arg Leu Leu Leu Ala Phe Gly Val Thr Ala
Thr Phe Met Ile Ile Glu Val Thr Gly Gly Leu Ile Ser Gly Ser Leu
Ala Leu Leu Ala Asp Ala Gly His Met Leu Thr Asp Ala Ala Leu
Leu Phe Ala Leu Leu Ala Val Gln Phe Ala Arg Arg Pro Pro Asn Ala
Arg His Thr Phe Gly Trp Leu Arg Leu Thr Thr Leu Ala Ala Phe Val
                85
Asn Ala Ile Ala Leu Val Val Ile Thr Ile Leu Ile Val Trp Glu Ala
                                105
                                                    110
            100
Phe Gln Arg Phe Arg His Pro Gln Pro Ile Ala Gly Thr Thr Met Met
                            120
                                                125
Val Ile Ala Ile Ala Gly Leu Val Ala Asn Ile Leu Ala Phe Trp Ile
                        135
                                            140
Leu His Arg Gly Ser Ser Glu Lys Asn Leu Asn Val Arg Ala Ala Ala
                                        155
                   150
Leu His Val Leu Gly Asp Leu Leu Gly Ser Val Gly Ala Ile Val Ala
                                    170
Ala Leu Ile Ile Met Gly Thr Gly Trp Thr Pro Ile Asp Pro Ile Leu
                                185
                                                    190
Ser Val Leu Val Ser Cys Leu Val Leu Arg Ser Ala Trp Arg Leu Leu
                            200
Lys Glu Ser Val Asn Glu Leu Leu Glu Gly Ala Pro Thr Ser Leu Asp
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Ile Gly Glu Leu Lys Arg Asn Leu Ser Arg Ser Ile Pro Glu Val Arg 230 235 Asn Val His His Val His Val Trp Leu Val Gly Glu Lys Pro Leu Met 250 245 Thr Leu His Val Gln Val Ile Pro Pro His Asp His Asp Ala Leu Leu 260 265 270 Glu Arg Ile Arg His Phe Leu Glu His His Tyr Glu Ile Ala His Ser 280 285 Thr Ile Gln Met Glu Tyr Gln Pro Cys Ser Gly Pro Asp Cys His Leu 295 300 Asn Glu Ala Gln Ser Gly His Ser His Ala His His His 310

<210> 6676

<211> 394

<212> PRT

<400> 6676

<213> Enterobacter cloacae

260

Arg Arg Pro Leu Pro Arg Ile Arg Ser Leu Lys Met Ser Leu Lys Asp 10 Lys Thr Gln Ser Leu Phe Ala Glu Lys Phe Gly Tyr Pro Ala Thr His 25 20 Val Ile Gln Ala Pro Gly Arg Val Asn Leu Ile Gly Glu His Thr Asp 40 Tyr Asn Asp Gly Phe Val Leu Pro Cys Ala Ile Asp Tyr Gln Thr Val 55 Ile Ser Cys Ala Lys Arg Asp Asp Arg His Val Arg Val Ile Ala Ala 75 70 Asp Tyr Gly Asn Glu Ile Asp Glu Phe Ser Leu Asp Ala Pro Ile Val 90 8.5 Thr His Asp Ser Gln Gln Trp Ser Asn Tyr Val Arg Gly Val Val Lys 100 105 His Leu Gln Lys Arg Asn Lys Asn Phe Gly Gly Ala Asp Leu Val Ile 125 120 Ser Gly Asn Val Pro Gln Gly Ala Gly Leu Ser Ser Ala Ser Leu 135 140 Glu Val Ala Val Gly Thr Val Phe Gln Gln Leu Tyr His Leu Pro Leu 150 155 Asp Gly Ala Gln Ile Ala Leu Asn Gly Gln Glu Ala Glu Asn Gln Phe 165 170 Val Gly Cys Asn Cys Gly Ile Met Asp Gln Leu Ile Ser Ala Leu Gly 185 Lys Lys Glu His Ala Leu Leu Ile Asp Cys Arg Ser Leu Gly Thr Lys 200 Ala Val Pro Leu Pro Lys Gly Ala Ala Val Val Ile Ile Asn Ser Asn 215 220 Phe Lys Arg Thr Leu Val Gly Ser Glu Tyr Asn Thr Arg Arg Glu Gln 230 235 Cys Glu Thr Gly Ala Arg Phe Phe Gln Gln Pro Ala Leu Arg Asp Val 250 245 Ser Leu Asp Glu Phe Asn Lys Val Ala His Glu Leu Asp Pro Val Val

265

Thr Lys Arg Val Arg His Ile Leu Thr Glu Asn Ala Arg Thr Val Glu 280

Ala Ala Ser Ala Leu Ala Lys Gly Asp Leu Lys Arg Met Gly Glu Leu

Met Ala Glu Ser His Ala Ser Met Arg Asp Asp Phe Glu Ile Thr Val

Pro Gln Ile Asp Thr Leu Val Glu Ile Val Lys Ala Thr Ile Gly Asp

295

310

270

285

300

315

Lys Gly Gly Val Arg Met Thr Gly Gly Gly Phe Gly Gly Cys Val Val 345 340 Ala Leu Val Pro Glu Glu Leu Val Pro Ala Ile Gln Asp Ala Val Ala 360 Lys Gln Tyr Glu Ala Lys Thr Gly Ile Lys Glu Thr Phe Tyr Val Cys 375 380 Lys Ala Ser Gln Gly Ala Gly Gln Cys 385 390 <210> 6677 <211> 252 <212> PRT <213> Enterobacter cloacae <400> 6677 Glu Met Ala Asn Thr Lys Leu Val Leu Val Arg His Gly Glu Ser Gln Trp Asn Asn Glu Asn Arg Phe Thr Gly Trp Tyr Asp Val Asp Leu Ser 20 25 Glu Lys Gly Val Ser Glu Ala Lys Ala Ala Gly Lys Leu Leu Lys Glu 35 40 Glu Gly Phe Asn Phe Asp Phe Ala Tyr Thr Ser Val Leu Lys Arg Ala 5.5 Ile His Thr Leu Trp Asn Ile Leu Asp Glu Leu Asp Gln Ala Trp Leu 70 75 Pro Val Glu Lys Ser Trp Lys Leu Asn Glu Arg His Tyr Gly Ala Leu 8.5 90 Gln Gly Leu Asn Lys Ala Glu Thr Ala Glu Lys Tyr Gly Asp Glu Gln 100 -105 110 Val Lys Gln Trp Arg Arg Gly Phe Ala Val Thr Pro Pro Glu Leu Ser 125 115 120 Lys Asp Asp Glu Arg Tyr Pro Gly His Asp Pro Arg Tyr Ala Lys Leu 135 140 Thr Glu Ala Glu Leu Pro Gln Thr Glu Ser Leu Ala Leu Thr Ile Asp 155 150 Arg Val Val Pro Tyr Trp Asn Glu Thr Ile Leu Pro Arg Leu Lys Ser 165 170 175 Gly Glu Arg Val Ile Ile Ala Ala His Gly Asn Ser Leu Arg Ala Leu 180 185 190 Val Lys Tyr Leu Asp Asn Met Gly Glu Asp Glu Ile Leu Glu Leu Asn 195 200 205 Ile Pro Thr Gly Val Pro Leu Val Tyr Glu Phe Asp Glu Asn Phe Lys 215 220 Pro Val Lys His Tyr Tyr Leu Gly Asn Ala Asp Glu Ile Ala Ala Lys 230 235 Ala Ala Ala Val Ala Asn Gln Gly Lys Ala Lys <210> 6678 <211> 406 <212> PRT <213> Enterobacter cloacae <400> 6678 Arg Ser Glu Gly Ala Ala Leu Arg Phe Ser Asp Asn Leu Gln Gln Tyr 10 Ile Ser Ile Ser Leu Ile Tyr Asn Ala Leu Ser Leu Arg Lys Ser Ala 25 Cys Glu Asn Gln Cys Lys Arg Tyr His Tyr Phe Ile Pro Cys His Thr

40

Phe Arg Val Ser Asp Met Leu Trp Leu Ile His Thr Ile Ser Leu Met

Glu Arg Asn Met Arg Val Leu Val Thr Gly Gly Ser Gly Tyr Ile Gly 70 75 Ser His Thr Cys Val Gln Leu Leu Gln Ser Gly His Asp Val Val Ile 85 90 Leu Asp Asn Leu Cys Asn Ser Lys Arg Ser Val Leu Pro Val Ile Glu 105 Arg Leu Ser Gly Lys Gln Pro Thr Phe Val Glu Gly Asp Ile Arg Asn 120 125 Glu Ala Leu Met Thr Glu Ile Leu His Asp His Ala Ile Glu Thr Val 135 140 Ile His Phe Ala Gly Leu Lys Ala Val Gly Glu Ser Val Ala Lys Pro 150 155 Leu Glu Tyr Tyr Asp Asn Asn Val Asn Gly Thr Leu Arg Leu Ile Ser 165 170 Ala Met Arg Ala Ala Asn Val Lys Asn Phe Ile Phe Ser Ser Ala 180 185 190 Thr Val Tyr Gly Asp. Gln Pro Lys Ile Pro Tyr Val Glu Ser Phe Pro 200 195 Thr Gly Thr Pro Gln Ser Pro Tyr Gly Lys Ser Lys Leu Met Val Glu 215 220 Gln Ile Leu Thr Asp Leu Gln Lys Ala Gln Pro Glu Trp Ser Ile Ala 230 235 Leu Leu Arg Tyr Phe Asn Pro Val Gly Ala His Pro Ser Gly Asp Met 245 250 Gly Glu Asp Pro Gln Gly Ile Pro Asn Asn Leu Met Pro Tyr Ile Ala 265 270 Gln Val Ala Val Gly Arg Arg Asp Ser Leu Ala Ile Phe Gly Asn Asp 280 Tyr Pro Thr Glu Asp Gly Thr Gly Val Arg Asp Tyr Ile His Val Met 295 300 Asp Leu Ala Asp Gly His Val Ala Ala Met Gln Gln Leu Ala Asp Lys 310 315 Pro Gly Val His Ile Tyr Asn Leu Gly Ala Gly Val Gly Ser Ser Val 325 330 Leu Asp Val Val Asn Ala Phe Ser Lys Ala Cys Gly Lys Pro Val Lys 345 Tyr His Phe Ala Pro Arg Arg Asp Gly Asp Leu Pro Ala Tyr Trp Ala 360 Asp Ala Thr Lys Ala Asp Lys Glu Leu Asn Trp Arg Val Thr Arg Thr 375 380 Leu Asp Glu Met Ala Gln Asp Thr Trp His Trp Gln Ser Arg His Pro 390 395 Gln Gly Tyr Pro Asp

<210> 6679

<211> 352

<212> PRT

<213> Enterobacter cloacae

## <400> 6679

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70
                                        75
Asp Phe Ala Ala Leu Met Thr Asp Thr Pro Asp Ala Pro Glu Ser His
                85
                                    90
Asp Pro Leu Met Arg Cys Glu Ser Ala Arg Gly Thr Ser Arg Val Ile
                                105
Cys Phe Ser Pro Asp His Ser Lys Thr Leu Pro Glu Leu Ser Val Asp
                            120
                                                125
Ala Leu Lys Glu Val Val Ser Thr Trp Gln Val Gln Thr Ala Glu Leu
                        135
                                            140
Gly Gln Ser Tyr Pro Trp Val Gln Val Phe Glu Asn Lys Gly Ala Ala
                    150
                                        155
Met Gly Cys Ser Asn Pro His Pro His Gly Gln Ile Trp Ala Asn Ser
                                    170
                165
Phe Leu Pro Asn Glu Ala Glu Arg Glu Asp Arg Leu Gln Lys Ala Tyr
                                                    190
           180
                                185
Phe Ala Gln Asn Gly Ser Pro Met Leu Val Asp Tyr Thr Gln Arg Glu
                            200
                                                205
Leu Ala Asp Gly Ser Arg Thr Val Val Glu Thr Glu His Trp Leu Ala
                        215
                                            220
Val Val Pro Tyr Trp Ala Ala Trp Pro Phe Glu Thr Leu Leu Pro
                    230
                                        235
Lys Ala His Val Gln Arg Ile Thr Glu Leu Ser Asp Ala Gln Arg Asp
                245
                                    250
Asp Leu Ala Leu Lys Lys Leu Thr Ser Arg Tyr Asp Asn Leu
                                265
                                                    270
Phe Gln Cys Ser Phe Pro Tyr Ser Met Gly Trp His Gly Ala Pro Phe
        275
                            280
Asn Gly Glu Asn Gln His Trp Gln Leu His Ala His Phe Tyr Pro
                        295
Pro Leu Leu Arg Ser Ala Thr Val Arg Lys Phe Met Val Gly Tyr Glu
                    310
                                        315
Met Leu Ala Glu Thr Gln Arg Asp Leu Thr Ala Glu Gln Ala Ala Glu
                                    330
Arg Leu Arg Ala Val Ser Asp Val His Tyr Arg Glu Ser Gly Val
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<210> 6680

<211> 232

<212> PRT

<213> Enterobacter cloacae

## <400> 6680

Gln Ser Arg Tyr Ser Pro Pro Lys Arg Glu Thr Lys Asp Asp Lys Glu 10 Ser Pro Asp Asn Met Thr Leu Lys His Ser Asn Leu Leu His Leu Asp 25 Leu His Thr Asn His Val Thr Met Thr Asn Ile Arg Thr Val Leu Gly 40 45 Ser Met Glu Leu Asp Glu Met Leu Ser Gln Arg Asp Ser Ile Asn Thr 55 60 Arg Leu Leu His Ile Val Asp Glu Ala Thr Asn Pro Trp Gly Ile Lys 70 7.5 Val Thr Arg Ile Glu Ile Arg Asp Val Arg Pro Pro Ala Glu Leu Ile · 85 90 Ala Ser Met Asn Ala Gln Met Lys Ala Glu Arg Thr Lys Arg Ala Tyr 105 Ile Leu Glu Ala Glu Gly Val Arg Gln Ala Glu Ile Leu Lys Ala Glu 120 Gly Glu Lys Gln Ser Gln Ile Leu Lys Ala Glu Gly Asp Arg Gln Ser 140 Ala Phe Leu Gln Ala Glu Ala Arg Glu Arg Ser Ala Glu Ala Glu Ala

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150
                                        155
Arg Ala Thr Gln Met Val Ser Glu Ala Ile Ala Ala Gly Asp Ile Gln
               165
                                   170
Ala Val Asn Tyr Phe Val Ala Gln Lys Tyr Thr Asp Ala Leu Lys Glu
           180
                               185
                                                    190
Ile Gly Ser Ala Asn Asn Ser Lys Val Val Met Met Pro Leu Asp Ala
                           200
Ser Ser Leu Met Gly Ser Ile Ala Gly Ile Ala Glu Leu Ile Lys Asp
                        215
Gly Gly Asn Glu Arg Lys Lys
<210> 6681
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 6681
Thr Glu Arg Leu Asn Leu Val Pro Val Arg Ala Ser Met Asn Leu Ser
Val Tyr Gly Ala Arg Met Gly Leu Phe Asn Arg Ile Lys Thr Ser Phe
            20
                                25
Arg Ala Leu Phe Pro Arg Arg Tyr Ala Trp Pro Gly Met Asp Ile Ser
                            40
Leu Pro Gly Gly Gln His Leu His Leu Val Gly Ser Ile His Met Gly
                        55
Thr Gln Asp Met Ser Pro Leu Pro Ser Gly Leu Ile Lys Leu Leu Lys
                    70
                                        75
Arg Ala Asp Ala Leu Ile Val Glu Ala Asp Ile Ser Gly His Glu Ser
                                    90
Pro Phe Ala Gly Leu Glu Ser Asp Arg Pro Leu Ala Glu Arg Leu Asn
            100
                                105
Glu Thr Gln Leu Ala Glu Leu Thr Arg Leu Ala Asp Glu Thr Gly Val
                            120
Ser Leu Ser Met Leu Asp Thr Leu Pro Leu Trp Gln Ile Ala Met Val
                        135
                                            140
Leu Gln Ala Thr Gln Ala Gln Arg Leu Gly Leu Arg Gly Asp Tyr Gly
                    150
                                        155
Ile Asp Tyr Gln Leu Leu Asn Ala Ala Arg Ala Arg Asn Leu Ser Ile
                                    170
Ile Glu Leu Glu Gly Thr Gly Ser Gln Ile Ala Leu Leu Arg Gln Leu
                                185
Pro Asp Asp Gly Leu Ile Leu Leu Asp Asp Thr Leu Thr His Trp His
                            200
Thr Asn Ala Arg Leu Leu Gln Thr Met Ile Gly Trp Trp Leu Asp Ala
                        215
                                            220
Pro Pro Ala Asp Gly Lys Leu Ala Leu Pro Ser Thr Phe Ser Glu Ser
                    230
                                        235
Leu Tyr Asp Val Leu Met Asn Ala Arg Asn Gln Ala Trp Arg Glu Thr
                245
                                    250
Leu Tyr Ala Leu Pro Ala Gly Arg Tyr Val Val Ala Val Gly Ala Leu
                               265
His Leu Tyr Gly Glu Gly Asn Leu Pro Ser Leu Leu Lys
                            280
<210> 6682
<211> 193
<212> PRT
<213> Enterobacter cloacae
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Pro Ser Leu Pro Ile Leu Leu Arg Lys Met Val Leu Phe Phe Arg Gln 10 Thr Ser Gly Val Cys Cys Trp His Glu Ser Ser Val Val Arg Arg Ile 25 Ala Met Thr Pro Ala Val Lys Leu Leu Glu Lys Asn Lys Ile Ser Phe 40 Arg Ile His Thr Tyr Asp His Asp Pro Asn Glu Thr Asn Phe Gly Asp 55 Glu Val Val Arg Lys Leu Gly Leu Asn Ala Asp Gln Val Tyr Lys Thr 70 75 Leu Leu Val Ala Val Asn Gly Asp Met Lys His Leu Ala Val Ala Val 90 Thr Pro Val Ala Gly Gln Leu Asp Leu Lys Lys Val Ala Lys Ala Leu 105 Gly Ala Lys Lys Val Asp Met Ala Asp Pro Met Val Ala Gln Arg Thr 115 120 Thr Gly Tyr Leu Val Gly Gly Ile Ser Pro Leu Gly Gln Lys Lys Arg 135 140 Leu Pro Thr Leu Ile Asp Ala Pro Ser Gln Glu Phe Glu Thr Ile Tyr 150 155 Ile Ser Gly Gly Lys Arg Gly Leu Asp Ile Glu Leu Ser Ala Gly Asp 165 170 Leu Ala Lys Met Leu Asp Ala Lys Phe Ala Asp Ile Ala Arg Arg Asp 185

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<210> 6683
<211> 880
<212> PRT
<213> Enterobacter cloacae
<400> 6683
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Ala Gly Phe Phe Arg Asn Ile Ala Asp Ile His Ile Ser Pro Leu Thr 10 Phe Pro Leu Met Glu Gly Leu Thr Phe Ile Thr Val Ser Glu Lys Gln Ser Glu Gly Gln Gln Leu Thr Arg Thr Leu Tyr Gly Ser Phe Val Met 40 Ser His Thr Ile Asp Leu Thr Leu Asp Gly Leu Ser Cys Gly His Cys Val Lys Arg Val Lys Glu Ser Leu Glu Gln Arg Pro Asp Val Glu Ser Ala Glu Val Thr Ile Asp His Ala Ala Val Thr Gly Ser Ala Ser Ala 90 Asp Ala Leu Ile Asp Thr Ile Lys Gln Ala Gly Tyr Gly Ala Glu Leu 105 Ser His Pro Lys Ala Lys Pro Leu Ala Glu Ser Ser Pro Ser Glu 120 115 125 Ala Leu Thr Ala Ala Thr Pro Glu Leu Pro Val Ala Asp Asp Ile Asp 135 140 Asp Ser Gln Gln Leu Leu Ile Asn Gly Met Ser Cys Ala Ser Cys Val 150 155 Ser Arg Val Gln Asn Ala Leu Gln Ala Val Pro Gly Val Ala Gln Ala 165 170 Arg Val Asn Leu Ala Glu Arg Thr Ala Leu Val Met Gly Ser Ala Ser 185 Ala Ala Glu Leu Val Gln Ala Val Glu Lys Ala Gly Tyr Gly Ala Glu 200 205 Ala Ile Glu Asp Asp Ala Glu Arg Arg Glu Arg Gln Gln Glu Thr Ala 215

Val Ala Thr Met Lys Arg Phe Arg Trp Gln Ala Ile Val Ala Leu Leu 230 235 Val Gly Ile Pro Val Met Val Trp Gly Met Met Gly Asp Asn Met Met 245 250 Val Thr Ala Asp Asn Arg Thr Leu Trp Leu Val Ile Gly Leu Ile Thr 260 265 Leu Ala Val Met Val Phe Ala Gly Gly His Phe Tyr Thr Ser Ala Trp 280 Lys Ser Leu Lys Asn Arg Thr Ala Thr Met Asp Thr Leu Val Ala Leu 295 300 Gly Thr Gly Ala Ala Trp Leu Tyr Ser Met Ser Val Asn Val Trp Pro 310 315 Gln Trp Phe Pro Met Glu Ala Arg His Leu Tyr Tyr Glu Ala Ser Ala 325 330 Met Ile Ile Gly Leu Ile Asn Leu Gly His Met Leu Glu Ala Arg Ala 345 Arg Gln Arg Ser Ser Lys Ala Leu Glu Arg Leu Leu Asp Leu Thr Pro 360 Pro Thr Ala Arg Val Val Thr Asp Glu Gly Glu Lys Ser Val Pro Leu 375 380 Ala Glu Val Gln Pro Gly Met Thr Leu Arg Leu Thr Thr Gly Asp Arg 390 395 Val Pro Val Asp Gly Lys Ile Ser Gln Gly Glu Ala Trp Leu Asp Glu 405 410 Ala Met Leu Thr Gly Glu Pro Ile Pro Gln Gln Lys Ser Asp Gly Asp 425 420 430 Ala Val His Ala Gly Thr Val Val Gln Asp Gly Ser Val Leu Phe Arg 445 440 Ala Ser Ala Val Gly Ser His Thr Thr Leu Ser Arg Ile Ile Arg Met 455 460 Val Arg Gln Ala Gln Ser Ser Lys Pro Glu Ile Gly Gln Leu Ala Asp 470 475 Lys Ile Ser Ala Ile Phe Val Pro Val Val Val Gly Ile Ala Leu Leu 490 485 Ser Ala Ala Ile Trp Tyr Phe Phe Gly Pro Ala Pro Gln Ile Val Tyr 505 Thr Leu Val Ile Ala Thr Thr Val Leu Ile Ile Ala Cys Pro Cys Ala 520 525 Leu Gly Leu Ala Thr Pro Met Ser Ile Ile Ser Gly Val Gly Arg Ala 535 540 Ala Glu Phe Gly Val Leu Val Arg Asp Ala Asp Ala Leu Gln Arg Ala 550 555 Ser Thr Leu Asp Thr Leu Val Phe Asp Lys Thr Gly Thr Leu Thr Glu 565 570 Gly Lys Pro Gln Val Val Ala Val Ser Thr Val Gly Cys Thr Glu Thr 585 Asp Ala Leu Arg Leu Ala Ala Leu Glu Gln Gly Ser Ser His Pro 600 Leu Ala Arg Ala Ile Leu Glu Lys Ala Gly Asp Ala Arg Leu Pro Gln 615 620 Val Ser Asn Phe Arg Thr Leu Arg Gly Leu Gly Val Ser Gly Glu Ala 630 635 Glu Gly His Thr Leu Leu Gly Asn Gln Ala Leu Leu Thr Glu His 650 645 Gly Val Asp Thr Ser Ala Leu Asp Ala Glu Leu Asn Ala Gln Ala Ser 665 660 Gln Gly Ala Thr Pro Val Leu Leu Ala Arg Asp Gly Gln Val Ala Ala 680 685 Leu Leu Ala Val Arg Asp Pro Leu Arg Gln Asp Ser Val Asp Ala Leu 700 695 Gln Arg Leu His Arg Ala Gly Tyr Arg Leu Val Met Leu Thr Gly Asp

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710
                                        715
Asn Pro Thr Thr Ala Asn Ala Ile Ala Lys Glu Ala Gly Ile Asp Glu
                                    730
Val Ile Ala Gly Val Leu Pro Asp Gly Lys Ala Asp Ala Ile Lys Asn
                                745
Leu Gln Ser Gln Gly Arg Gln Val Ala Met Val Gly Asp Gly Ile Asn
                            760
Asp Ala Pro Ala Leu Ala Gln Ala Asp Val Gly Ile Ala Met Gly Gly
                        775
Gly Ser Asp Val Ala Ile Glu Thr Ala Ala Ile Thr Leu Met Arg His
                    790
                                        795
Ser Leu Met Gly Val Ala Asp Ala Leu Ala Ile Ser Lys Ala Thr Leu
                805
                                    810
Arg Asn Met Lys Gln Asn Leu Leu Gly Ala Phe Val Tyr Asn Ser Leu
                                825
            820
                                                     830
Gly Ile Pro Ile Ala Ala Gly Ile Leu Trp Pro Leu Thr Gly Thr Leu
                            840
Leu Asn Pro Val Val Ala Gly Ala Ala Met Ala Leu Ser Ser Ile Thr
                        855
Val Val Ser Asn Ala Asn Arg Leu Leu Arg Phe Lys Pro Lys Asp
                    870
                                        875
<210> 6684
<211> 152
<212> PRT
<213> Enterobacter cloacae
<400> 6684
Lys Met Ile Glu Leu Ile Val Ala His Pro His Ala Phe Trp Leu Ser
                                    10
Leu Gly Gly Leu Leu Ala Ala Glu Met Leu Gly Gly Asn Gly Tyr
                                25
Leu Leu Trp Ser Gly Val Ala Ala Val Ile Thr Gly Leu Val Val Trp
                            40
                                                4.5
Leu Leu Pro Val Gly Trp Glu Trp Gln Gly Ala Leu Phe Ala Val Leu
                        55
Thr Leu Leu Ala Ala Trp Leu Trp Trp Arg Trp Leu Asn Lys Arg Val
                    70
                                        75
Lys Ala Gln Lys Pro Val Asp Ala His Leu Asn Gln Arg Gly Gln Gln
                8.5
                                    90
Ile Val Gly Lys Arg Phe Thr Leu Asp Asn Thr Leu Ile Asn Gly Arg
            100
                                105
Gly His Met Arg Val Gly Asp Ser Ser Trp Pro Val Val Ala Asp Asp
                           120
                                                125
Asp Leu Ser Ala Gly Thr Arg Val Glu Val Ile Ala Val Glu Gly Ile
                        135
Thr Leu Arg Val Lys Ala Cys
<210> 6685
<211> 342
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(331)
<400> 6685
Gln Ile Asp Val Val Phe Met Ala Ile Ser Glu Ser Thr Gln Pro Val
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Gln Gly Ala Pro Ala Ser Pro Pro Lys Ser Arg Thr Ser Phe Lys Val
            20
                               25
Leu Gly Ala Ile Ser Leu Ser His Leu Leu Asn Asp Met Ile Gln Ser
                            40
Leu Ile Leu Ala Ile Tyr Pro Leu Leu Gln Ser Glu Phe Ser Leu Thr
Phe Val Gln Ile Gly Met Ile Thr Leu Thr Phe Gln Leu Ala Ser Ser
                    70
                                        75
Leu Leu Gln Pro Val Val Gly Tyr Trp Thr Asp Lys Tyr Pro Met Pro
                                    90
Trp Ser Leu Pro Ile Gly Met Cys Phe Thr Leu Ser Gly Leu Val Leu
                                105
            100
Leu Ala Met Ala Gly Ser Phe Glu Ala Val Leu Val Ala Ala Ala Leu
                            120
                                                125
Val Gly Thr Gly Ser Ser Val Phe His Pro Glu Ser Ser Arg Val Ala
                        135
                                            140
Arg Met Ala Ser Gly Gly Arg His Gly Leu Ala Gln Ser Leu Phe Gln
                    150
                                        155
Val Gly Gly Asn Phe Gly Ser Ser Leu Gly Pro Leu Leu Ala Ala Val
                165
                                    170
Ile Ile Ala Pro Tyr Gly Lys Gly Asn Val Ala Trp Phe Val Leu Ala
            180
                                185
Ala Leu Leu Ala Ile Val Val Leu Ala Gln Ile Ser Arg Trp Tyr Ala
                            200
                                                205
Ala Gln His Arg Val Asn Lys Gly Lys Pro Ala Val Lys Ile Thr Asn
                        215
                                            220
Pro Leu Pro Arg Asn Lys Val Ile Leu Ala Val Ser Val Leu Leu Val
                    230
                                        235
Leu Ile Phe Ser Lys Tyr Phe Tyr Met Ala Ser Ile Ser Ser Tyr Tyr
                245
                                    250
Thr Phe Tyr Leu Met Gln Lys Phe Gly Leu Ser Val Gln Asn Ala Gln
                                265
Phe His Leu Phe Ala Phe Leu Phe Ala Val Ala Ala Gly Thr Val Ile
                            280
                                                285
Gly Gly Pro Val Gly Asp Lys Ile Gly Arg Lys Tyr Val Ile Trp Gly
                        295
                                            300
Ser Ile Leu Gly Val Ala Pro Phe Thr Leu Val Leu Pro Tyr Ala Thr
                    310
Leu Glu Trp Thr Gly Ile Leu Ser Ser Thr Xaa Ala Asp Gly Thr Tyr
                325
                                    330
Thr Ser Pro Pro Pro
            340
```

<210> 6686 <211> 566 <212> PRT

<213> Enterobacter cloacae

<400> 6686

 Val Thr Val
 Ile Phe Ala Phe Val Tyr Gly Ser Gly Arg Glu Lys Met

 1
 5
 10
 15

 Lys Leu Met Lys Arg Gly Val Ala Leu Ala Leu Ile Ala Ala Trp Gly
 20
 25
 30

 Leu Thr Ser Leu Pro Ala Gln Ala Tyr Glu Lys Asp Lys Thr Tyr Lys
 35
 40
 45

 Ile Thr Ile Leu His Thr Asn Asp His His Gly His Phe Trp Arg Ser
 50
 60

 Glu Tyr Gly Glu Tyr Gly Leu Ala Ala Gln Lys Thr Leu Val Asp Gly
 65
 70

 Ile Arg Lys Glu Val Ala Ala Gln Gly Gly Ser Val Leu Leu Leu Ser
 65

Gly Gly Asp Ile Asn Thr Gly Val Pro Glu Ser Asp Leu Gln Asp Ala 100 105 Glu Pro Asp Phe Arg Gly Met Asn Leu Ile Gly Tyr Asp Ala Met Ala 120 125 Val Gly Asn His Glu Phe Asp Asn Pro Leu Ser Val Leu Arg Gln Gln 135 140 Glu Lys Trp Ser Lys Phe Pro Phe Leu Ser Ala Asn Ile Tyr Gln Lys 150 155 Ser Thr Gly Glu Arg Leu Phe Lys Pro Trp Ala Leu Phe Lys Arg Gln 170 Asp Leu Lys Ile Ala Val Ile Gly Leu Thr Thr Asp Asp Thr Ala Lys 185 Ile Gly Asn Pro Glu Phe Phe Thr Asp Ile Glu Phe Arg Lys Pro Ala 200 Asp Glu Ala Lys Leu Val Ile Gln Glu Leu Gln Gln Asn Glu Lys Pro 215 220 Asp Val Ile Ile Ala Thr Thr His Met Gly His Tyr Asp Asn Gly Gln 235 230 His Gly Ser Asn Ala Pro Gly Asp Val Glu Met Ala Arg Ser Leu Pro 250 245 Ala Gly Ser Leu Ala Met Ile Val Gly Gly His Ser Gln Asp Pro Val 260 265 270 Cys Met Ala Ser Glu Asn Lys Lys Gln Val Asp Tyr Val Pro Gly Thr 280 275 Pro Cys Ala Pro Asp Arg Gln Asn Gly Ile Trp Ile Val Gln Ala His 295 300 290 Glu Trp Gly Lys Tyr Val Gly Arg Ala Asp Phe Glu Phe Arg Asn Gly 310 315 Glu Met Lys Leu Val His Tyr Gln Leu Ile Pro Val Asn Leu Lys Lys 330 335 325 Lys Val Thr Tyr Pro Asp Gly Lys Ser Glu Arg Val Leu Tyr Thr Pro 340 345 Glu Ile Ala Glu Asn Gln Gln Met Leu Ser Leu Leu Thr Pro Phe Gln 360 Ser Lys Gly Lys Ala Gln Leu Asp Val Lys Ile Gly Thr Leu Asn Gly 375 380 Arg Leu Glu Gly Asp Arg Ser Lys Val Arg Phe Val Gln Thr Asn Met 390 395 Gly Arg Leu Val Leu Ala Ala Gln Met Ala Arg Thr Asn Ala Asp Phe 405 410 Ala Val Met Ser Gly Gly Gly Ile Arg Asp Ser Ile Glu Gly Gly Asp 425 Ile Thr Tyr Lys Asp Val Leu Lys Val Gln Pro Phe Gly Asn Val Val 440 Val Tyr Ala Asp Met Ser Gly Lys Glu Val Ile Asp Tyr Leu Thr Ala 455 Val Ala Gln Met Lys Pro Asp Ser Gly Ala Tyr Pro Gln Phe Ala Asn 470 475 Val Ser Phe Val Ala Lys Asp Gly Lys Leu Asn Asp Leu Lys Ile Lys 485 490 Gly Glu Pro Val Asp Thr Ala Lys Thr Tyr Arg Leu Ala Thr Leu Ser 505 Phe Asn Ala Thr Gly Gly Asp Gly Tyr Pro His Ile Asp Asn Lys Pro 520 525 Gly Tyr Val Asn Thr Gly Phe Ile Asp Ala Glu Val Leu Lys Gln Phe · 535 540 Ile Gln Gln Asn Ser Pro Ile Asp Val Asn Ala Tyr Glu Pro Lys Gly 550 555 Glu Val Ser Trp Gln 565

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<210> 6687
<211> 148
<212> PRT
<213> Enterobacter cloacae
<400> 6687
Thr Phe His Gln Gly Glu Gly Gln Gly Gly Asn Val Asn Ile Ser Asp
                                    10
Val Ala Lys Lys Thr Gly Leu Thr Ser Lys Ala Ile Arg Phe Tyr Glu
            20
                                25
Glu Lys Gly Leu Val Thr Pro Pro Leu Arg Ser Glu Asn Gly Tyr Arg
Ser Tyr Thr Gln Leu His Leu Asp Glu Leu Thr Leu Leu Arg Gln Ala
                        55
Arg Gln Val Gly Phe Asn Leu Glu Glu Cys Gly Glu Leu Val Asn Leu
Phe Asn Asp Pro Lys Arg His Ser Ala Asp Val Lys Lys Arg Thr Leu
                85
                                   . 90
Glu Lys Val Ala Glu Ile Glu Arg His Ile Ile Glu Leu Gln Ala Met
                                105
Arg Glu Gln Leu Gln Leu Ala Glu Ser Cys Pro Gly Asp Asp Ser
                            120
                                                125
Ala Glu Cys Pro Ile Ile Asp Asn Leu Ser Gly Cys Cys His Arg Lys
                        135
Thr His Ala
145
<210> 6688
<211> 69
<212> PRT
<213> Enterobacter cloacae
<400> 6688
Arg Ile Gly Phe Gln Arg Trp Glu Pro Phe Leu Tyr Arg Lys Phe Ile
                                    10
Met Arg Thr Ala Tyr Ala Tyr Ile Arg Phe Ser Ser Glu Lys Gln Ser
                                25
Ala Gly Asp Ser Val Arg Arg Gln Gln Ser Leu Ile Asp Ser Trp Val
                            40
                                                45
Lys Asn Asn Pro Asp Tyr Ile Leu Ser Phe Phe Thr Thr Ala Ala Lys
Val Thr Leu Leu Val
65
<210> 6689
<211> 245
<212> PRT
<213> Enterobacter cloacae
<400> 6689
Cys Thr His His Leu Asn Thr Phe Asp Gly Val Ser Arg Leu His
                                    10
Gly Phe Lys Ser Gln Arg Gly Ala Asp Tyr Pro Phe Gln Phe Ala Met
                                25
Ile Ala Phe Asn His Val Val Pro Val Leu Asn Leu Ser Val Phe Asn
                            40
                                                45
Val Arg Arg Ala Pro Ala Phe Ala Phe Glu Gln Ser Lys Arg Ala Thr
                        55
                                            60
Ile Gly Gly Arg Phe Ile Arg Val Asp Glu Ser Arg Asp Leu Pro Leu
                                        75
Leu His Val Val Glu Asp Phe Thr Gln Lys Pro Val Cys Ser Phe Ala
```

				85					90					95	
Val	Thr.	Thr	Gly 100		Glu	Ile	Lys	Ile 105		Ser	Ala	Ala	Pro 110		Val
Asp	Gly	Pro 115	Val	Gln	Ile	Arg	Pro 120	Ala	Ala	Ile	Asp	Leu 125	His	Val	Gly
Phe	Ile 130		Val	Pro	Arg	Ala 135		Ile	Gly	Arg	Val 140		Pro	Val	Pro
Ala 145	Gln	Pro	Phe	Phe	His 150	Phe	Arg	Arg	Ile	Thr 155	Leu	Asn	Pro	Ala	Val 160
	Arg	Gly	Val	Ile 165		Ile	His	Ser	Ala 170		Ser	Gln	His	Leu 175	
Gln	Leu	Thr	Val 180		Asp	Ala	Val	Phe 185		Val	Pro	Ala	Tyr 190		Pro
Gln	Asn	Asp 195		Thr	Leu	Lys	Met 200		Ala	Phe	Glu	Trp 205		His	Val
Gln	Leu 210		Gln	Gln	Lys	Gly 215		Ile	Ser	Leu	Ser 220		Pro	Thr	Ile
Cys 225	Asn	Ser	Ala	Pro	Ser 230		Val	Thr	Leu	His 235		Ile	Lys	Ile	Tyr 240
	His	Glu	Gln	245	230					233					210
				243											
<210> 6690 <211> 76															
<212> PRT <213> Enterobacter cloacae															
<21.	3> E1	nter	obact	cer o	cload	cae									
	)> 60		Tlo	C1	Πb ~	Ψ	Cln	C	7~~	Dho	Tou	C1.,	Th ~	Tlo	Mo+
1	Ala			5					10					15	
Gly	Arg	Gly	Arg 20	Arg	Leu	Lys	Ser	Tyr 25	Leu	Asp	Tyr	Glu	Asn 30	Ala	Leu
Gly	Asp	Gly 35	Ile	Gly	Val	Gly	Tyr 40	Gly	Gln	Ser	Tyr	Gln 45	Pro	Trp	Leu
Arg	Ala 50	Gln	Asp	Val	Lys	Ser 55	Arg	Gly	Asn	Arg	Ser 60	Ile	Val	Phe	Gly
Leu 65	Lys	Thr	Phe	Arg	Asn 70	His	His	His	Gly	Val 75					
<210> 6691															
<211> 287 <212> PRT															
	<212> PRT <213> Enterobacter cloacae														
<40	0> 60	591													
Thr 1	Ile	Lys	Leu	Ser 5	Ala	Tyr	Ile	Asn	Ser 10	Asn	Thr	Arg	Gly	Val 15	Met
	His	Ile	Gln 20	Arg	Glu	Thr	Ser	Cys 25	Ser	Arg	Pro	Arg	Leu 30		Ser
Asn	Met	Asp 35		Asp	Leu	Tyr	Gly 40		Lys	Trp	Ala	Arg 45		Asn	Val
Gly	Gln 50		Gly	Ala	Thr	Ile 55		Arg	Leu	Tyr	Gly 60	Lys	Pro	Asp	Ala
Pro 65	Glu	Leu	Phe	Leu	Lys 70		Gly	Lys	Gly	Ser 75		Ala	Asn	Asp	Val 80
	Asp	Glu	Met			Leu	Asn	Trp			Glu	Phe	Met	Pro 95	
Pro	Thr	Ile	_	85 His	Phe	Ile	Arg		90 Pro	Asp	Asp	Ala			Leu
Thr	Thr		100 Ile	Pro	Gly	Lys		105 Ala	Phe	Gln	Val		110 Glu	Glu	Tyr
		115					120					125			

Pro Asp Ser Gly Glu Asn Ile Val Asp Ala Leu Ala Val Phe Leu Arg 135 140 Arg Leu His Ser Ile Pro Val Cys Asn Cys Pro Phe Asn Ser Asp Arg 150 155 Val Phe Arg Leu Ala Gln Ala Gln Ser Arg Met Asn Asn Gly Leu Val 170 165 Asp Ala Ser Asp Phe Asp Asp Glu Arg Asn Gly Trp Pro Val Glu Gln 185 180 Val Trp Lys Glu Met His Lys Leu Leu Pro Phe Ser Pro Asp Ser Val 195 200 Val Thr His Gly Asp Phe Ser Leu Asp Asn Leu Ile Phe Asp Glu Gly 215 220 Lys Leu Ile Gly Cys Ile Asp Val Gly Arg Val Gly Ile Ala Asp Arg 235 230 Tyr Gln Asp Leu Ala Ile Leu Trp Asn Cys Leu Gly Glu Phe Ser Pro 250 245 Ser Leu Gln Lys Arg Leu Phe Gln Lys Tyr Gly Ile Asp Asn Pro Asp 265 Met Asn Lys Leu Gln Phe His Leu Met Leu Asp Glu Phe Phe 275 280

<210> 6692

<211> 262

<212> PRT

<213> Enterobacter cloacae

<400> 6692

Cys Thr His His Leu Asn Thr Phe Asp Gly Gly Val Ser Arg Leu His 10 Gly Phe Lys Ser Gln Arg Gly Ala Asp Tyr Pro Phe Gln Phe Ala Met 25 Ile Ala Phe Asn His Val Val Pro Val Leu Asn Leu Ser Val Phe Asn 40 Val Arg Arg Ala Pro Ala Phe Ala Phe Glu Gln Ser Lys Arg Ala Thr 55 Ile Gly Gly Arg Phe Ile Arg Val Asp Glu Ser Arg Asp Leu Pro Leu 75 Leu His Val Val Glu Asp Phe Thr Gln Lys Pro Val Cys Ser Phe Ala 90 8.5 Val Thr Thr Gly Gly Glu Ile Lys Ile Asp Ser Ala Ala Pro Ala Val 100 105 Asp Gly Pro Val Gln Ile Arg Pro Ala Ala Ile Asp Leu His Val Gly 120 125 115 Phe Ile His Val Pro Arg Ala Lys Ile Gly Arg Val Thr Pro Val Pro 140 135 Ala Gln Pro Phe Phe His Phe Arg Arg Ile Thr Leu Asn Pro Ala Val 155 150 Asn Arg Gly Val Ile Asp Ile His Ser Ala Phe Ser Gln His Leu Leu 165 170 Gln Leu Thr Val Thr Asp Ala Val Phe Ala Val Pro Ala Tyr Gly Pro 185 190 Gln Asn Asp Val Thr Leu Lys Met Pro Ala Phe Glu Trp Val His Val 200 205 Gln Leu His Gln Gln Lys Gly Met Ile Ser Leu Ser Pro Pro Thr Ile 215 220 Cys Asn Ser Ala Ser Thr Leu Ala Thr Gly Leu Arg Val Gly Asp Leu 230 235 Gly Gly Ser Val Leu Ala Phe Glu Val Gly Ala Lys Glu Arg Met Ala 250 245 Leu Arg Ala Thr His

<210> 6693 <211> 85 <212> PRT <213> Enterobacter cloacae <400> 6693 Val Arg Asn Val Val Gln Arg Gln Val Ser Ala Asp Asp Phe Met Cys Phe Thr Val Asn Gly Glu Met Gln Leu Thr Pro Asp Thr Ala Ala Phe 25 Leu Ala Met Leu Phe Asp Phe Pro Leu Ala Phe Thr Glu Asp Leu Gln 40 Pro Gly Gly Ile Asn Tyr Gln Val Cys Asp Phe Thr Pro Gly Gly Arg Phe Glu Thr Asp Ile Asn Arg Leu Cys Pro Pro Ala Asp Thr Ala Val 70 75 Ile Arg Ala Ala <210> 6694 <211> 555 <212> PRT <213> Enterobacter cloacae <400> 6694 Leu Ser Ser Met Phe Leu Leu Val Tyr Tyr Phe Pro Glu Val Leu Met 10 Pro Val Leu Phe Arg Val Lys Val Ile Pro Leu Val Leu Leu Ala Met Ile Phe Ala Phe Leu Leu Asn Trp Pro Ile Leu Leu His Phe Tyr Glu Ile Leu Ser His Leu Glu His Val Lys Ile Gly Phe Val Ile Ser 60 Ile Pro Phe Val Leu Val Ala Ala Leu Asn Val Val Phe Met Pro Phe 75 Ser Val Arg Phe Leu Leu Lys Pro Phe Phe Ala Leu Leu Phe Ile Thr Gly Ser Leu Val Ser Tyr Ser Thr Leu Lys Tyr Lys Leu Met Phe Asp 100 105 Gln Thr Met Ile Gln Asn Ile Ile Glu Thr Asn Pro Gln Glu Ala His 120 Ser Tyr Leu Asn Gly Ser Ile Ile Ile Trp Phe Val Phe Thr Gly Ile 135 140 Leu Pro Ala Ile Leu Leu Phe Ser Ile Lys Ile Gln Tyr Pro Glu Lys 150 155 Trp Tyr Lys Gly Ile Ala Tyr Arg Leu Leu Ser Val Leu Ala Ser Leu 170 175 165 Ser Leu Ile Ala Gly Val Ala Ala Leu Tyr Tyr Gln Asp Tyr Ala Ser 180 185 190 Val Gly Arg Asn Asn Ser Thr Leu Asn Lys Glu Ile Ile Pro Ala Asn 200 Tyr Ala Tyr Ser Thr Phe Gln Tyr Val Lys Asp Thr Tyr Phe Thr Thr 215 220 Lys Val Pro Phe Gln Thr Leu Gly Asn Asp Ala Lys Arg Val Val Ala 230 235 His Glu Lys Pro Thr Leu Met Phe Leu Val Ile Gly Glu Thr Ala Arg 250

Ser Gln Asn Phe Ser Met Asn Gly Tyr Ser Arg Asp Thr Asn Ala Phe 260 265 270 Thr Ser Lys Ser Gly Gly Val Ile Ser Phe Lys Asn Met His Ser Cys

```
275
                            280
                                                 285
Gly Thr Ala Thr Ala Ile Ser Val Pro Cys Met Phe Ser Asn Met Asn
                        295
                                            300
Arg Thr Glu Tyr Asp Ser Lys Lys Ala Ser Asn Ser Glu Asn Phe Leu
                    310
                                        315
Asp Ile Val Gln Lys Thr Gly Val Ser Leu Leu Trp Lys Glu Asn Asp
                                    330
                325
Gly Gly Cys Lys Gly Val Cys Ser Arg Ile Pro Thr Val Glu Ile Lys
                                345
Pro Ser Asp Asn Pro Lys Leu Cys Asp Gly Lys Thr Cys His Asp Glu
                            360
Val Met Leu Glu Asn Leu Asp Asp Glu Ile Ala Lys Met Pro Gly Asp
                        375
Lys Leu Val Ala Phe His Ile Ile Gly Ser His Gly Pro Thr Tyr Tyr
                    390
                                        395
Leu Arg Tyr Pro Ala Glu His Arg His Phe Met Pro Glu Cys Ala Arg
                405
                                    410
Ser Asp Ile Glu Asn Cys Thr Gln Glu Gln Leu Val Asn Thr Tyr Asp
                                425
            420
Asn Thr Leu Arg Tyr Thr Asp Tyr Val Leu Ala Glu Met Ile Glu Lys
                            440
Leu Lys Asn Tyr Ser Asp Gln Tyr Asn Thr Val Leu Leu Tyr Val Ser
                        455
                                            460
Asp His Gly Glu Ser Leu Gly Glu Ser Gly Leu Tyr Leu His Gly Thr
                                             .
                    470
                                         475
Pro Tyr Lys Leu Ala Pro Asp Gln Gln Thr His Ile Pro Met Gln Val
                485
                                    490
Trp Met Ser Pro Gly Phe Ile Ala Gly Lys His Ile Asn Met Ser Cys
            500
                                505
Leu Glu Asn Asn Ala Ala Lys Lys Ser Tyr Ser His Asp Asn Leu Phe
                            520
                                                 525
Ser Ser Ile Leu Gly Leu Trp Asp Val Ser Thr Ser Val Tyr Asn Pro
                        535
                                             540
Asp Arg Asp Leu Phe Arg Glu Cys Arg Gly
                    550
<210> 6695
<211> 246
<212> PRT
<213> Enterobacter cloacae
<400> 6695
Thr Tyr His Pro Leu Leu Met Glu Leu His Met Asn Pro Phe Lys
Gly Arg His Phe Gln Arg Asp Ile Ile Leu Trp Ala Val Arg Trp Tyr
                                25
Cys Lys Tyr Gly Ile Ser Tyr Arg Glu Leu Gln Glu Met Leu Ala Glu
                            40
                                                 45
Arg Gly Val Asn Val Asp His Ser Thr Ile Tyr Arg Trp Val Gln Arg
                        55
Tyr Ala Pro Glu Met Glu Lys Arg Leu Arg Trp Tyr Trp Arg Asn Pro
                    70
                                        75
Ser Asp Leu Cys Pro Trp His Met Asp Glu Thr Tyr Val Lys Val Asn
                85
                                    90
Gly Arg Trp Ala Tyr Leu Tyr Arg Ala Val Asp Ser Arg Gly Arg Thr
                                105
                                                     110
Val Asp Phe Tyr Leu Ser Ser Arg Arg Asn Ser Lys Ala Ala Tyr Arg
                            120
                                                125
Phe Leu Gly Lys Ile Leu Asn Asn Val Lys Lys Trp Gln Ile Pro Arg
                       135
```

Phe Ile Asn Thr Asp Lys Ala Pro Ala Tyr Gly Arg Ala Leu Ala Leu.

150 155 Leu Lys Arg Glu Gly Arg Cys Pro Ser Asp Val Glu His Arg Gln Ile 170 165 Lys Tyr Arg Asn Asn Val Ile Glu Cys Asp His Gly Lys Leu Lys Arg 180 185 Ile Ile Gly Ala Thr Leu Gly Phe Lys Ser Met Lys Thr Ala Tyr Ala 200 205 Thr Ile Lys Gly Ile Glu Val Met Arg Ala Leu Arg Lys Gly Gln Ala 215 220 Ser Ala Phe Tyr Tyr Gly Asp Pro Leu Gly Glu Met Arg Leu Val Ser 230 Arg Val Phe Glu Met

245

<210> 6696

<211> 273

<212> PRT

<213> Enterobacter cloacae

<400> 6696 Thr Trp Tyr Glu Ser Ala Ala Leu Ser Ser Arg Gly Arg Pro Gln Arg 10 Tyr Ser Asp Leu Ala Ile Thr Thr Val Leu Val Ile Lys Arg Val Phe 25 Arg Leu Thr Leu Arg Ala Ala Gln Gly Phe Ile Asp Ser Ile Phe Ser 40 Leu Met Asn Val Pro Leu Arg Cys Pro Asp Tyr Ser Cys Val Ser Arg 55 Arg Ala Lys Ser Val Asn Val Ser Phe Lys Thr Pro Thr Arg Gly Glu 70 7.5 Ile Ala His Leu Val Ile Asp Ser Thr Gly Leu Lys Val Phe Gly Glu 85 90 Gly Glu Trp Lys Val Lys Lys His Gly Gln Glu Arg Arg Ile Trp 100 105 110 Arg Lys Leu His Leu Ala Val Asp Ser Lys Thr His Glu Ile Ile Cys. 120 125 Ala Asp Leu Ser Leu Asn Asn Val Thr Asp Ser Glu Ala Phe Pro Gly 135 140 Leu Ile Arg Gln Thr His Arg Lys Ile Arg Ser Ala Ala Ala Asp Gly 150 155 Ala Tyr Asp Thr Arg Leu Cys His Asp Glu Leu Arg His Lys Lys Ile 165 170 Ser Ala Leu Ile Pro Pro Arg Lys Gly Ala Gly Tyr Trp Pro Gly Glu 185 Tyr Ala Asp Arg Asn Arg Ala Val Ala Asn Gln Arg Met Thr Gly Ser 200 Asn Ala Arg Trp Lys Trp Thr Thr Asp Tyr Asn Arg Arg Ser Ile Ala 215

Glu Thr Ala Met Tyr Arg Val Lys Gln Leu Phe Gly Gly Ser Leu Thr

Leu Arg Asp Tyr Asp Gly Gln Val Ala Glu Ala Met Ala Leu Val Arg

Ala Leu Asn Lys Met Thr Lys Ala Gly Met Pro Glu Ser Val Arg Ile

265

235

250

230

245

Ala

<sup>&</sup>lt;210> 6697

<sup>&</sup>lt;211> 246

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6697 Thr Tyr His Pro Leu Leu Met Glu Leu His Met Asn Pro Phe Lys 10 Gly Arg His Phe Gln Arg Asp Ile Ile Leu Trp Ala Val Arg Trp Tyr 25 Cys Lys Tyr Gly Ile Ser Tyr Arg Glu Leu Gln Glu Met Leu Ala Glu 40 Arg Gly Val Asn Val Asp His Ser Thr Ile Tyr Arg Trp Val Gln Arg 55 Tyr Ala Pro Glu Met Glu Lys Arg Leu Arg Trp Tyr Trp Arg Asn Pro 70 Ser Asp Leu Cys Pro Trp His Met Asp Glu Thr Tyr Val Lys Val Asn 90 Gly Arg Trp Ala Tyr Leu Tyr Arg Ala Val Asp Ser Arg Gly Arg Thr 100 105 Val Asp Phe Tyr Leu Ser Ser Arg Arg Asn Ser Lys Ala Ala Tyr Arg 120 Phe Leu Gly Lys Ile Leu Asn Asn Val Lys Lys Trp Gln Ile Pro Arg 135 140 Phe Ile Asn Thr Asp Lys Ala Pro Ala Tyr Gly Arg Ala Leu Ala Leu 150 155 Leu Lys Arg Glu Gly Arg Cys Pro Ser Asp Val Glu His Arg Gln Ile 170 165 Lys Tyr Arg Asn Asn Val Ile Glu Cys Asp His Gly Lys Leu Lys Arg 185 Ile Ile Gly Ala Thr Leu Gly Phe Lys Ser Met Lys Thr Ala Tyr Ala 200 Thr Ile Lys Gly Ile Glu Val Met Arg Ala Leu Arg Lys Gly Gln Ala 215 220 Ser Ala Phe Tyr Tyr Gly Asp Pro Leu Gly Glu Met Arg Leu Val Ser 230 235 Arg Val Phe Glu Met

<210> 6698 <211> 333 <212> PRT

<213> Enterobacter cloacae

<400> 6698

Phe Ser Val Leu Val Ser Val Gly Arg Ile Leu Gly Gly Gly Val 10 Ala Ser Ala Asp Gly Met Arg Phe Val Thr Pro Val Lys Thr Val Asn 25 Ser Gly Pro Asn Arg Lys Tyr Phe Gly Ser Gly Arg Gly Ile Thr Trp Tyr Asn Phe Val Ser Asp Gln Tyr Ser Gly Phe His Gly Ile Val Ile Pro Gly Thr Leu Arg Asp Ser Ile Phe Val Leu Glu Gly Leu Leu Glu Gln Gln Thr Gly Leu Asn Pro Val Glu Ile Met Thr Asp Thr Ala Gly 90 Thr Ser Asp Ile Ile Phe Gly Leu Phe Trp Leu Leu Gly Tyr Gln Phe 105 Ser Pro Arg Leu Ala Asp Ala Gly Glu Ala Val Phe Trp Arg Ala Asp 120 125 Lys Ala Ala Asn Tyr Gly Ala Leu Asp Lys Leu Ala Arg Gly Cys Val 135 140 Asp Leu Ser Lys Ile Glu Ser His Trp Asp Glu Met Met Arg Val Ala 150 155

Gly Ser Leu Lys Leu Gly Thr Ile His Ala Ser Glu Leu Ile Arg Ser 170 Leu Leu Arg Ser Thr Arg Pro Ser Gly Leu Ala Gln Ala Ile Met Glu 185 Val Gly Arg Val Asn Lys Thr Leu Tyr Leu Leu Asn Tyr Ile Asp Asp 200 Glu Asp Tyr Arg Arg Ile Leu Thr Gln Leu Asn Arg Gly Glu Gly 215 220 Arg His Ala Val Ala Arg Ala Ile Cys Tyr Gly Gln Arg Gly Glu Ile 230 235 Arg Lys Arg Tyr Arg Glu Gly Gln Glu Asp Gln Leu Gly Ala Leu Gly 250 245 Leu Val Thr Asn Ala Val Val Leu Trp Asn Thr Leu Tyr Met Gln Glu 260 265 Ala Leu Ser His Leu Arg Ser Ile Gly Glu Gly Pro Glu Asp Glu His 285 275 . 280 Ile Ala Arg Leu Ser Pro Leu Met His Gly His Ile Asn Met Leu Gly 295 300 His Tyr Thr Phe Thr Leu Pro Glu Asp Ile Met Lys Gly Glu Leu Arg 310 315 Pro Leu Asn Leu Asn Leu Asn Asn Glu Leu Ser Pro 325

<210> 6699

<211> 716

<212> PRT

<213> Enterobacter cloacae

<400> 6699

His Ser Val Pro Phe Trp Val Val Ser Lys Leu Ile Thr Phe Glu Thr 10 Val Lys Lys Arg Thr Glu His Pro Phe Thr Lys Gly Cys Val Met Ala 25 Ala Asp Phe Leu Thr Asp Lys Gln Thr Gln Asn Tyr Gly Arg Tyr Ala 40 Ala Glu Pro Asn Glu Ile Gln Leu Ala Arg Tyr Phe His Leu Asp Glu 55 Arg Asp Leu Thr Phe Ile Asn Leu Arg Arg Gly Arg His Asn Arg Leu 75 Gly Ile Ala Leu Gln Leu Thr Thr Ala Arg Phe Leu Gly Thr Phe Leu 85 90 Ser Asp Leu Met Gln Ile Pro Pro Gly Val Gln Phe Tyr Val Ala Arg 100 105 110 Gln Leu Asn Ile Arg Tyr Pro Glu Ile Ile Ser Arg Tyr Ala Gln Arg 120 125 Glu Asn Thr Arg Trp Glu His His Gly Leu Ile Arg Gln His Tyr Ser 135 140 Tyr His Asp Phe Gly Asp Phe Pro Trp Ser Phe Arg Leu Lys Arg Leu 150 155 Leu Tyr Thr Arg Ala Trp Leu Ser Asn Glu Arg Pro Gly Leu Met Phe 165 170 Asp Phe Ala Thr Ala Trp Leu Leu Gln Asn Lys Val Leu Leu Pro Ala 185 Ala Ser Thr Leu Thr Arg Val Ile Gly Glu Ile Arg Glu Arg Ala Thr 200 Arg Arg Leu Trp Arg Lys Leu Ala Ala Leu Pro Asn Arg Trp Gln Thr 215 Ala Gln Leu Ala Gly Leu Leu Glu Ile Pro Glu Gly Gln Arg Leu Ser 230 235 Val Met Glu His Leu Lys Arg Gly Pro Val Thr Ile Ser Gly Pro Ala 250

Phe Thr Glu Ala Leu Glu Arg Tyr Thr Arg Leu Arg Ser Leu Glu Phe 265 Ser Cys Leu Asn Phe Thr Gly Leu Pro Ala Ile Gln Leu Arg Asn Leu 280 Ala Arg Tyr Ala Gly Met Ala Ser Val Lys Tyr Ile Ser Arg Met Pro 295 300 Glu Glu Arg Arg Leu Ala Ile Leu Thr Ala Phe Val Lys Ala Gln Glu 310 315 Ile Ser Ala Leu Asp Glu Ala Val Asp Val Leu Asp Met Leu Ile Leu 325 330 Asn Ile Thr Arg Glu Ala Lys Lys Thr Gly Gln Lys Lys Arg Leu Arg 345 340 Thr Leu Lys Asp Leu Asp Arg Ala Ala Leu Leu Leu Ala Arg Ala Cys 355 360 Ala Leu Leu Asp Glu Asp Thr Ala Asp Asp Leu Leu Arg Lys Thr 375 380 Ile Phe Ser Ser Val Ser Val Ala Arg Leu Ala Glu Ser Val Glu Lys 395 390 Val Asn Glu Leu Ala Arg Pro Gln Asp Thr Asn Phe Gln Asp Glu Met 405 410 Val Glu Gln Tyr Gly Arg Val Arg Phe Leu Pro Ala Leu Leu Arg 420 425 Asp Leu His Phe Arg Ala Ala Pro Asp Gly Glu His Thr Leu Ala Ala 440 Ile His Tyr Leu Ala Glu Leu Asn Gly Ser Lys Lys Arg Ile Leu Asp 460 Asp Ala Pro Glu His Ile Ile Ser Gly Pro Trp Lys Arg Leu Val Tyr 470 475 Asp Ala Asp Gly Arg Ile Gln Arg Ala Gly Tyr Ser Leu Cys Leu Leu 490 485 Glu Arg Leu Gln Asp Ala Leu Arg Arg Asp Ile Trp Leu Glu Asn 505 Ser Asp Arg Trp Gly Asp Pro Arg Gln Lys Leu Leu Gln Gly Glu Glu 520 Trp Gln Ala Gln Arg Val Pro Val Cys Arg Ala Leu Gly His Pro Thr 540 535 Asn Gly Ser Lys Ala Ser Glu Gln Leu Ala Ala Gln Leu Asp Glu Thr 550 555 Trp Lys Thr Val Ala Ser Arg Phe Asp Arg Asn Thr Ala Val Asp Ile 570 Cys Asn Glu Gly Lys His Pro Ser Leu Thr Ile Ser Ser Leu Asp Lys 585 Leu Asp Glu Pro Pro Ala Leu Ile Gln Leu Ser Ser Arg Val Arg Gln 600 Leu Leu Pro Pro Val Asp Leu Thr Glu Leu Leu Glu Ile Asp Ala 615 620 Arg Thr Gly Phe Thr Arg Glu Phe Ser His Val Ser Glu Ser Gly Ala 630 635 Arg Ala Gln Asp Leu His Ile Ser Leu Cys Ala Val Met Leu Ala Glu 645 650 Ala Cys Asn Ile Gly His Glu Pro Leu Ile Lys His Asn Ile Pro Ala 660 665 Leu Thr Arg His Arg Leu Ser Trp Val Lys Gln Asn Tyr Ile Arg Ala 680 685 Glu Thr Leu Val Ser Ala Asn Ala Arg Leu Val Asp Phe Gln Ser Ser 695 700 Leu Ala Leu Ala Gly Tyr Trp Gly Ala Gly Arg 710

<210> 6700 <211> 197 <212> PRT

<213> Enterobacter cloacae

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<400> 6700
Ala Glu Gly Ile Thr Met Gln Arg Leu Phe Pro Ala Leu Trp Val Val
Leu Phe Leu Val Val Ser Pro Leu His Ala Glu Pro Lys Val Tyr Gly
                                25
Glu Gln Arg Ile His Arg Trp Trp Asp Ala Val Thr Asp Asp Ile Ala
Gln Thr Trp Glu Gln Pro Asp Arg Tyr Asp Leu Tyr Leu Pro Phe Leu
Ser Trp His Ala Arg Phe Met Tyr Asp Lys Glu Lys Thr Asp Asn Tyr
                    70
Asn Glu Met Pro Trp Gly Gly Gly Leu Gly Val Ser Arg Tyr Asn Asp
                                    90
                8.5
Glu Gly Asn Trp Ser Ala Leu Phe Ala Met Met Phe Lys Asp Ser His
            100
                                105
Asn Glu Trp Gln Pro Ala Met Gly Tyr Gly Trp Glu Lys Gly Trp Phe
                            120
                                                125
Leu Asp Asn Ala Lys Asp Phe Arg Leu Gly Leu Gly Ala Ala Gly
                        135
                                            140
Ile Thr Ala Arg Asp Asp Phe Ala Asn Tyr Val Pro Leu Pro Phe Ile
                    150
                                        155
Phe Pro Leu Phe Ser Ala Gly Tyr Lys Arg Val Thr Val Gln Phe Thr
                                    170
Tyr Ile Pro Gly Thr Tyr Asn Asn Gly Asn Val Leu Phe Ala Trp Leu
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185

<210> 6701

Arg Leu Gly Phe

195

<211> 905 <212> PRT

<213> Enterobacter cloacae

180

<400> 6701

Lys Glu Pro Glu Glu Gly Thr Met Ile Thr Glu Lys Pro His Arg Pro Tyr Tyr Gln Gln Thr Val Asp Glu Thr Leu Thr Asn Ile Gln Ser Ser Leu Asp Gly Leu Ser Ser Thr Glu Ala Thr Ala Arg Leu Glu Lys Tyr Gly Glu Asn Ala Leu Pro Gln Lys Pro Gly Lys Pro Gly Trp Leu Arg Phe Leu Ala His Phe Asn Asp Val Leu Ile Tyr Val Leu Leu Ala Ala 75 70 Ala Leu Leu Lys Leu Ile Met Gly His Trp Val Asp Met Phe Val Ile 85 90 Leu Gly Val Ala Ile Ile Asn Ala Leu Ile Gly His Ile Gln Glu Ser 105 100 Asn Ala Glu Lys Ser Leu Gln Ser Ile Arg Asn Met Leu Ser Ser Glu 120 Ala Val Val Ile Arg Gln Gly Asn His Glu Thr Ile Pro Thr Thr Ala 135 140 Leu Val Pro Gly Asp Ile Val Val Ile Arg Ala Gly Asp Arg Ile Pro 150 155 Ala Asp Leu Arg Val Ile Glu Ala His Asn Leu Arg Val Glu Glu Ala 170 Ile Leu Thr Gly Glu Ser Thr Val Val Glu Lys Ser Ser Asp Val Leu 185

Ser Gly Glu Leu Pro Leu Gly Asp Arg Tyr Asn Leu Leu Tyr Ser Gly 200 Thr Thr Val Ser Ser Gly Gly Gly Lys Gly Leu Val Val Ala Thr Gly 215 220 Gly Glu Thr Glu Leu Gly His Ile Asn Gln Met Met Ser Asp Ile Glu 230 235 Lys His Arg Thr Pro Leu Met Val Gln Met Asp Lys Leu Gly Lys Thr 250 245 Ile Phe Ile Thr Ile Leu Val Met Met Leu Ala Leu Phe Val Phe Ser 265 Leu Ile Phe Arg Asp Met Pro Val Ser Glu Leu Val Leu Ser Leu Ile 280 Ser Leu Ala Val Ala Ala Val Pro Glu Gly Leu Pro Ala Ile Ile Ser 295 300 Ile Ile Leu Ser Leu Gly Val Gln Ala Met Ala Arg Arg Lys Ala Ile 315 310 Ile Arg Lys Leu Pro Thr Val Glu Thr Leu Gly Ala Met Thr Val Ile 325 330 Cys Ser Asp Lys Thr Gly Thr Leu Thr Met Asn Glu Met Thr Val Lys 340 345 Ala Val Ile Thr Ala Asp Thr Thr Tyr Arg Val Glu Gly Asp Ser Tyr 360 Glu Pro Val Gly Ala Ile His Pro Val Asp Asp Pro Thr Pro Val Thr 375 380 370 Val Thr Gln Gly Ser Val Leu Glu Arg Tyr Leu Arg Thr Val Asp Leu 390 395 Cys Asn Asp Ser Gln Leu Ile Lys Asp Glu Gln Gly Leu Trp Lys Ile 405 410 Thr Gly Gly Pro Thr Glu Gly Ala Leu Lys Val Leu Ala Ala Lys Ile 420 425 Pro Leu Pro Thr Ile Asp Ala Glu Leu Arg Ser Lys Ile Pro Phe Asp 440 445 Ser Gln Tyr Lys Tyr Met Ser Thr Leu Tyr His Leu Gly Asp Glu Glu 455 460 Val Met Leu Ile Thr Gly Ala Pro Asp Val Leu Phe Arg Leu Cys Gln 470 475 His Gln Gln Thr Gln Asn Gly Leu Glu Pro Phe Asn Leu His Tyr Trp 485 490 495 Glu Glu Lys Ile Glu Glu Tyr Ala Arg Glu Gly Leu Arg Met Val Ala 500 505 Ala Ala Trp Lys Pro Ala Ala Ser Gly Gln Arg Glu Leu Thr His Ala 520 Asp Leu Gln Glu Gly Val Ile Leu Leu Gly Ile Ala Gly Met Met Asp 535 Pro Pro Arg Pro Glu Ala Ile Ser Ala Ile Ala Asp Cys Leu Gln Ala 550 555 Gly Ile Arg Val Lys Met Ile Thr Gly Asp His Pro Gln Thr Ala Met 565 570 Ser Ile Gly Gln Met Leu Gly Ile Gly Asn Ala Ala Ser Ala Ile Thr 585 Gly Arg Glu Leu Glu Ala Met Asp Asp His Gln Leu Ser Glu Ala Ala 600 605 Gln Lys Tyr Asp Ile Phe Ala Arg Thr Ser Pro Glu Asp Lys Phe Arg 615 620 Leu Val Gln Ala Leu Gln Ser Lys Gln Glu Val Val Gly Met Thr Gly 635 630 Asp Gly Val Asn Asp Ala Pro Ala Leu Lys Arg Ala Asp Val Gly Ile 645 650 Ala Met Gly Ile Lys Gly Thr Glu Val Thr Lys Glu Ala Ala Asp Met 665 Val Leu Thr Asp Asp Asn Phe Ala Thr Ile Ala Arg Ala Val His Glu

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680
                                                685
Gly Arg Arg Val Tyr Asp Asn Leu Lys Lys Thr Ile Leu Phe Val Ile
                       695
                                           700
Pro Ser Asn Ile Ala Gln Ala Leu Leu Ile Ile Ile Ala Leu Leu Ala
                   710
                                       715
Gly Asn Leu Ile Pro Leu Thr Pro Val Leu Ile Leu Trp Met Asn Met
                                   730
               725
Ala Thr Ser Ala Thr Leu Ser Phe Gly Leu Ala Phe Glu Ala Gly Glu
                               745
           740
Lys Asp Ile Met Asn Arg Pro Pro Arg Lys Ser Asn Leu His Val Met
                           760
Asp Gly Tyr Ala Ile Trp Arg Val Val Phe Val Gly Leu Met Ile Ala
                       775
                                            780
Ile Ser Ala Phe Val Met Glu Ala Trp Leu Gln Pro Arg Gly Tyr Ser
                   790
                                        795
Pro Glu Ile Ile Arg Thr Val Leu Leu Gln Thr Val Val Thr Ala Gln
               805
                                    810
Trp Phe Tyr Met Leu Asn Cys Arg Val Thr Asp Gly Phe Ser Leu Ser
                               825
Lys Gly Leu Leu Ala Asn Lys Gly Ile Trp Ile Val Ser Gly Val Leu
                           840
Met Ala Leu Gln Leu Leu Ile Ile Tyr Ala Pro Phe Met Gln Met Leu
                       855
Phe Gly Thr Glu Ala Leu Pro Phe Arg Tyr Trp Ile Ile Thr Cys Leu
                                       875
                   870
Ile Gly Phe Ala Met Phe Met Ile Val Glu Ala Glu Lys Val Phe Thr
                                    890
               885
Arg Arg Trp Arg Thr Thr Lys Arg
           900
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<210> 6702
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<400> 6702

His Pro Phe Leu Phe Ser Val Lys Gly Ile His Ala Cys Thr His Gly 10 Val Asp Ala Ile Ser Pro Asp Ser Leu Thr Val Val Leu Val Ile Lys 25 Arg Met Leu Asp Met Tyr Lys Thr Ile Leu Val Pro Val Asp Val Tyr 40 Glu Thr Ala Leu Ser Asp Lys Ala Leu Gln His Ala Gln Phe Leu Ala 55 60 Gln Ser Ala Ser Gly Asn Val His Leu Leu Tyr Val Met Pro Lys Phe 75 70 Ser Ala Glu Leu Thr Arg Gly Phe Ile Ala Asp Ala Arg Lys Met Asp 90 Glu Tyr Met Ile Asn Asn Ala Lys Glu Lys Leu Ala Ala Leu Val Lys 105 Lys Ile Asn Leu Pro Glu Ala Asn Val His Leu His Val Arg Ser Gly 120 Asn Ile Arg Asp Glu Val Ile Lys Leu Ala Asp Glu Leu Asn Val Gly 135 140 Ala Ile Ile Val Gly Ser Arg Asn Pro Asn Ile Gln Thr His Leu Leu 150 155 Gly Ser Glu Ala Ala Ser Ile Val Arg Tyr Ala His Val Pro Val Phe 170 165 Val Ile Arg

<sup>&</sup>lt;211> 180

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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<210> 6703
<211> 238
<212> PRT
<213> Enterobacter cloacae
<220>
<221>UNSURE
<222>(238)
<400> 6703
Val Gln Asn Thr Met Ile Arg Phe Ala Ser Phe Val Phe Thr Leu Gly
Ile Leu Val Pro Ala Ala Ser Ala Val Thr Tyr Pro Leu Pro Pro Glu
Gly Ser Arg Leu Val Gly Ala Pro Ile Thr Ile Thr Val Pro Glu Gly
Asn Thr Leu Pro Leu Glu Ala Phe Ala Gln His Gly Gln Gly Leu
Ser Asn Met Leu Glu Ala Asn Pro Gly Val Asp Pro Phe Leu Pro Arg
                                        7.5
Ala Gly Thr Gln Leu Ala Val Pro Gln Gln Leu Ile Leu Pro Pro Thr
                                    90
Val Arg Glu Gly Ile Val Val Asn Val Ala Glu Met Arg Leu Tyr Tyr
            100
                                105
Tyr Pro Pro Gly Ser Asn Thr Val Glu Val Leu Pro Ile Gly Ile Gly
                            120
Gln Ala Gly Arg Glu Thr Pro Arg Asn Trp Val Thr Ala Val Glu Arg
                        135
Lys Gln Glu Gly Pro Thr Trp Ser Pro Thr Pro Asn Thr Arg Arg Ala
                    150
                                        155
Tyr Ala Lys Glu Gly Lys Thr Leu Pro Ala Phe Val Pro Ala Gly Pro
                165
                                    170
Asp Asn Pro Met Gly Leu Tyr Ala Leu Tyr Ile Gly Arg Leu Tyr Ala
                                185
            180
Ile His Gly Thr Asn Ser Asn Phe Gly Ile Gly Leu Arg Val Ser Gln
                            200
Gly Cys Ile Arg Leu Arg Asn Asn Asp Ile Lys Tyr Leu Phe Asp Asp
                                            220
                        215
Val Ser Phe Ser Pro Gly Ser Ala Gly Ser Gly Ile Ile Xaa
                    230
<210> 6704
<211> 370
<212> PRT
<213> Enterobacter cloacae
<400> 6704
Asn Asn Tyr Tyr Gln Gly Asn Thr Val Lys Arg Tyr Leu Ser Leu Leu
                                    10
Pro Val Val Leu Leu Leu Thr Ala Cys Asp Pro Lys Ser Asp Arg
                                25
Ala Ala Pro Leu Pro Lys Met Val Lys Val Ala Glu Val Val Lys Ala
Gly Asn Ala Gln Gln Arg Val Phe Pro Ala Arg Ile Glu Ser Gly Asp
                        55
Ala Thr Asp Leu Ala Phe Lys Arg Ala Gly Gln Ile Glu Thr Leu Asp
                                        75
Ile Arg Gln Gly Ala Val Val Lys Gln Gly Gln Arg Leu Ala Ser Leu
                                    90
Asn Asp Arg Glu Ala Arg Gln Arg Leu Asn Asp Arg Gln Thr Ala Ala
                                105
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Thr Leu Ala Gln Arg Gln Phe Asp Arg Phe Gln Thr Leu Ala Gly Arg 120 125 Gln Ala Val Ser Lys Ala Glu Met Asp Val Gln Arg Ala Asn Arg Asp 135 140 Ser Ala Asn Ala Ala Leu Gln Ile Ala Arg Glu Glu Leu Ser Gln Met 155 150 Thr Leu Val Ala Pro Phe Ser Gly Thr Ala Ala Ser Val His Val Arg 165 170 Asn His Gln Val Val Ser Ala Gly Gln Pro Val Val Thr Leu Thr Arg 180 185 Thr Asp Leu Leu Asp Val Val Phe Ser Leu Pro Glu Asn Leu Phe Asn 200 Thr Phe Asp Ile Arg Asn Ala Gln Tyr Lys Pro Val Val Arg Ile Asn 220 215 Ala Leu Pro Gly Arg Glu Phe Thr Ala Val Tyr Lys Glu His Ser Gly 230 235 Ser Ser Asp Ser Asn Thr Leu Thr Trp Gln Val Ile Leu Thr Met Pro 250 245 Arg Pro Asp Asp Phe Pro Val Val Gly Val Ser Gly Thr Val Thr 260 265 Ile Asn Leu Thr Asn Leu Pro Ala Gly Val Gly Ser Glu Ala Leu Val 280 Val Pro Val Glu Ala Val Phe Asn Pro Asp Asn His Pro Arg Asn Glu 295 300 Pro His Val Trp Val Val Thr Gly Glu Gly Asp Thr Leu His Leu Glu 310 315 Asp Arg Lys Val Ser Val Gly Gln Val Ser Ala Glu Gly Val Ile Ile 325 330 Val Gly Gly Leu Lys Ala Gly Glu Arg Val Val Ala Ala Gly Val Gly 345 Glu Leu His Pro Asn Gln Pro Val Arg Ile Trp Thr Arg Glu Arg Gly 360 Leu 370 <210> 6705 <211> 159 <212> PRT <213> Enterobacter cloacae <400> 6705 Val Val Ser Ala Val Ile Thr Ala Phe Thr Val Ile Ser Phe Met Val 10 Arg Val Pro Val Leu Ser Glu Gln Ile Thr Val Ile Ala Pro Ser Val 20 25 Ser Thr Val Gly Ser Leu Arg Ile Ile Ala Leu Arg Arg Ala Ile Ala 40 4.5 Cys Thr Pro Ser Glu Arg Met Ile Glu Ile Met Ala Gly Asn Pro Ser

 Val
 Val
 Ser
 Ala
 Val
 Ile
 Thr
 Ala
 Phe
 Thr
 Val
 Ile
 Thr
 Val

 Arg
 Val
 Pro
 Val
 Leu
 Ser
 Glu
 Glu
 Glu
 Ile
 Thr
 Val
 Ile
 Ala
 Pro
 Ser
 Val

 Ser
 Thr
 Val
 Gly
 Ser
 Leu
 Arg
 Ile
 Ile
 Ala
 Leu
 Arg
 Ala
 Ile
 Ile
 Ala
 Ile
 I

<210> 6706 <211> 448 <212> PRT

<213> Enterobacter cloacae

<400> 6706 Leu Lys Ile Ser Thr Asp Arg Thr Thr Met Asp Ser Thr Leu Ile Ser Ala Arg Arg Asn Glu Glu Thr Pro Ser Leu Asn Arg Ala Arg Arg Ala Ala Leu Gly Ser Phe Ala Gly Ala Val Val Asp Trp Tyr Asp Phe Leu 40 Leu Tyr Gly Ile Thr Ala Ala Leu Val Phe Asn Arg Glu Phe Phe Pro 55 Gln Ile Ser Pro Ala Met Gly Thr Leu Ala Ala Phe Ala Thr Phe Gly 70 75 Val Gly Phe Leu Phe Arg Pro Leu Gly Gly Ile Ile Phe Gly His Phe 90 Gly Asp Arg Leu Gly Arg Lys Arg Met Leu Met Leu Thr Val Trp Met 100 105 Met Gly Ile Ala Thr Ala Leu Ile Gly Ile Leu Pro Ser Phe Ala Ser 120 125 Ile Gly Trp Trp Ala Pro Val Leu Leu Val Thr Leu Arg Ala Ile Gln 135 140 Gly Phe Ala Val Gly Gly Glu Trp Gly Gly Ala Ala Leu Leu Ser Val 150 155 Glu Ser Ala Pro Lys Asn Lys Lys Ala Phe Tyr Ser Ser Gly Val Gln 165 170 Val Gly Tyr Gly Val Gly Leu Leu Ser Thr Gly Leu Val Ser Leu 180 185 Ile Ser Gln Leu Thr Thr Asp Glu Gln Phe Leu Ser Trp Gly Trp Arg 200 205 Ile Pro Phe Ile Phe Ser Ile Val Leu Val Val Ala Leu Trp Ile 215 220 Arg Asn Gly Met Glu Glu Ser Ala Glu Phe Glu Arg Gln Gln Arg Glu 230 235 Lys Pro Val Ala Lys Lys Arg Leu Pro Val Met Glu Ala Leu Val Gln 250 His Pro Gly Ala Phe Leu Lys Ile Ile Ala Leu Arg Leu Cys Glu Leu 265 270 Leu Thr Met Tyr Ile Val Thr Ala Phe Ala Leu Asn Tyr Ser Thr Gln 280 Asn Leu Gly Leu Pro Arg Glu Leu Phe Leu Asn Ile Gly Leu Val Val 295 Gly Gly Ile Ser Cys Leu Thr Ile Pro Cys Phe Ala Trp Leu Ala Asp 310 315 Arg Phe Gly Arg Arg Arg Val Tyr Ile Thr Gly Ala Leu Ile Gly Thr 330 325 Leu Ser Ala Trp Pro Phe Phe Met Ala Leu Glu Ala Gln Ser Val Phe 340 345 Trp Ile Val Phe Phe Ala Ile Met Leu Ala Asn Ile Ala His Asp Met 360 Val Val Cys Val Gln Gln Pro Met Phe Thr Glu Leu Phe Gly Ala Ser 380 375 Tyr Arg Tyr Ser Gly Ala Gly Val Gly Tyr Gln Val Ala Ser Val Val 390 395 Gly Gly Gly Phe Thr Pro Phe Ile Ala Ala Leu Val Thr Phe Ser 405 410 Gly Gly Asn Trp His Ser Val Ala Ile Tyr Leu Leu Ala Gly Cys Leu 425

Leu Ser Ala Ala Thr Ala Leu Leu Met Lys Glu Thr Ala His Ser 435 440 445

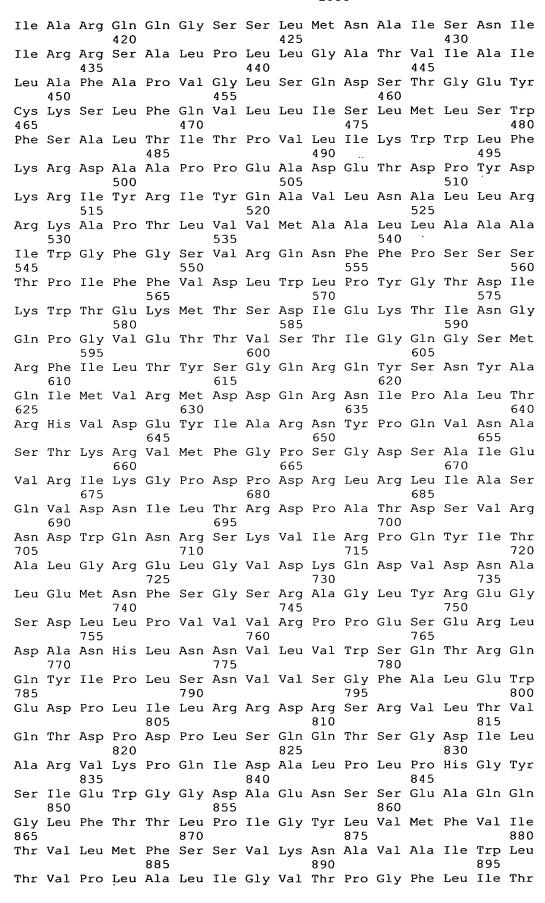
<210> 6707

<211> 1025

<212> PRT

<213> Enterobacter cloacae

<400> 6707 Thr Gly Thr Ile Met Asp Ile Ser Arg Gln Phe Ile Ser Asn Pro Val Arg Val Trp Leu Thr Ile Leu Leu Leu Gly Val Gly Gly Ile Ile Ala 20 25 Leu Leu Asn Ile Gly Arg Leu Glu Asp Pro Ala Phe Thr Ile Lys Thr 40 Ala Val Val Ile Thr His Tyr Pro Gly Ala Ser Ala Gln Gln Val Glu 55 Glu Glu Val Thr Leu Pro Leu Glu Asn Ala Leu Gln Gln Leu Pro Tyr 70 7.5 Leu Asp Asn Val Ser Ser Ile Ser Ser Ser Gly Leu Ser Gln Ile Thr 90 85 Val Asn Ile Ala Ser Arg Tyr His Ser Asn Ala Leu Pro Gln Ile Trp 100 105 110 Asp Glu Leu Arg Arg Arg Val Gly Asp Ala Ala Arg Gln Phe Pro Pro 120 Gly Val Val Thr Pro Phe Val Asn Asp Asp Phe Gly Asp Val Phe Gly . 140 135 Phe Phe Phe Ala Ile Ser Gly Asp Glu Phe Ser Asn Pro Glu Leu Val 150 155 Arg Tyr Ala Glu Gln Leu Arg Arg Glu Leu Val Leu Val Pro Gly Val 175 170 Gly Lys Val Ala Ile Gly Gly Ala Leu Thr Gln Gln Ile Asn Val Asp 185 Ile Ser Leu Ser Lys Met Ala Ala Arg Gly Ile Thr Leu Asn Gln Leu 200 Ser Ala Gln Leu Ser Arg Leu Asn Val Val Ser Ser Ala Gly Glu Ile 215 220 Pro Ser Gly Thr Glu Ser Ile Arg Leu His Pro Thr Gly Glu Phe Glu 230 235 Ser Ile Asp Glu Leu Ala Asp Leu Ile Val Thr Pro Pro Gly Val Gly 250 Ala Ala Thr Arg Leu Arg Asp Ile Ala Thr Leu Ser Arg Gly Leu Asp 265 Ala Ser Pro Ala Ser Ile Tyr His Ala Asn Gly Lys Glu Ala Val Thr 280 Met Gly Val Ser Phe Ile Pro Gly Val Asn Val Ile Asp Val Gly His 300 295 Ala Leu Glu Ala Lys Leu Glu Gln Met Ser Ala Glu Lys Pro Ala Gly 310 315 Ile His Ile Asp Leu Phe Tyr Asp Gln Ala Ala Glu Val Gly His Ser 325 330 Val Asn Gly Phe Ile Ile Asn Phe Val Met Ala Leu Ala Ile Val Val 345 Gly Val Leu Leu Ile Phe Met Gly Leu Arg Ser Gly Ile Ile Ile Ala 360 Phe Ser Leu Ala Leu Asn Val Leu Gly Thr Leu Leu Ile Met Tyr Leu 375 380 Trp Gly Ile Glu Leu Gln Arg Ile Ser Leu Gly Ala Leu Ile Ile Ala 390 395 Leu Ser Met Leu Val Asp Asn Ala Ile Val Ile Val Glu Gly Val Leu



900 905 Gly Ile Pro Phe Gly Phe Met Ala Leu Ile Gly Leu Leu Ser Leu Ser 920 925 Gly Met Leu Ile Arg Asn Gly Ile Val Leu Val Glu Glu Ile Glu Gln 935 940 Gln Lys Ala Gln Gln Asp Gln His Ser Ala Ile Val Tyr Ala Ala Thr 955 950 Ser Arg Leu Arg Pro Ile Leu Leu Thr Ala Phe Thr Thr Val Leu Asp 965 970 Leu Ala Pro Leu Leu Asp Val Phe Phe Gln Ser Met Ala Val Val 985 980 Ile Met Phe Gly Leu Gly Phe Ala Thr Ile Leu Thr Leu Leu Val Leu 1000 1005 Pro Val Ile Tyr Ala Cys Phe His Arg Lys Asp Lys Ala Glu Gln Gln 1020 1015

1025

<210> 6708

<211> 517

<212> PRT

<213> Enterobacter cloacae

Arg Lys Pro Arg Thr Ala Asp Leu Leu Thr Phe Val Ser Gln Ala Cys Asp Ile Leu Ser Gly Lys Ala Ala His Leu Trp Asn Lys Glu Thr Asp Met Asn Asn Lys Gly Ser Ser Leu Thr Pro Ala Gln Ala Leu Glu Lys Leu Asp Ala Leu Tyr Glu Gln Ser Val Asn Ala Leu Arg Ser Ala Ile Ser Asp Tyr Ile Glu Thr Gly Lys Leu Pro Asp Glu Lys Ala Arg Thr 75 Gln Gly Leu Phe Val Tyr Pro Ser Leu Ser Val Thr Trp Asp Gly Ser Ala Ser Ser Asn Pro Lys Thr Arg Ala Tyr Ala Arg Phe Thr His Ser 100 105 Gly Cys Tyr Ser Thr Thr Ile Thr Arg Pro Ala Leu Phe Arg Pro Tyr 115 120 125 Leu Glu Glu Gln Leu Thr Leu Leu Tyr Gln Asp Tyr Gly Ala His Ile 135 140 Ser Val Glu Pro Ser Leu His Glu Ile Pro Tyr Pro Tyr Val Ile Asp 150 155 Gly Ser Ala Leu Thr Leu Asp Arg Ser Met Ser Ala Gly Leu Thr Arg 170 165 His Phe Pro Thr Thr Glu Leu Ser Gln Ile Gly Asp Glu Thr Ala Asp 180 185 190 Gly Ile Tyr His Pro Ala Glu Phe Ser Pro Leu Ser His Phe Asp Ala 200 205 195 Arg Arg Val Asp Phe Ser Leu Ala Arg Leu Arg His Tyr Thr Gly Thr 215 220 Pro Ala Glu His Phe Gln Pro Phe Val Leu Phe Thr Asn Tyr Thr Arg 230 235 Tyr Val Asp Glu Phe Val Arg Trp Gly Cys Ser Gln Ile Leu Ala Pro 250 Asp Ser Pro Tyr Val Ala Leu Ser Cys Ala Gly Gly Ile Trp Ile Thr 265 Ala Glu Thr Glu Ala Pro Glu Glu Ala Ile Ser Asp Leu Ala Trp Lys 280

Lys His Gln Met Pro Ala Trp His Leu Ile Thr Ala Asp Gly Gln Gly

295 300 Ile Thr Leu Ile Asn Ile Gly Val Gly Pro Ser Asn Ala Lys Thr Ile 310 315 Cys Asp His Leu Ala Val Leu Arg Pro Asp Val Trp Leu Met Ile Gly 330 325 His Cys Gly Gly Leu Arg Glu Ser Gln Leu Ile Gly Asp Tyr Val Leu 345 340 Ala His Ala Tyr Leu Arg Asp Asp His Val Leu Asp Ala Val Leu Pro 360 365 Pro Asp Ile Pro Ile Pro Ser Ile Ala Glu Val Gln Arg Ala Leu Tyr 370 375 380 Asp Ala Thr Lys Glu Val Ser Gly Met Pro Gly Glu Glu Val Lys Gln 395 390 Arg Leu Arg Thr Gly Thr Val Val Thr Thr Asp Asp Arg Asn Trp Glu 405 410 Leu Arg Tyr Ser Ala Ser Ala Leu Arg Phe Asn Leu Ser Arg Ala Val 420 425 Ala Ile Asp Met Glu Ser Ala Thr Ile Ala Ala Gln Gly Tyr Arg Phe 440 445 Arg Val Pro Tyr Gly Thr Leu Leu Cys Val Ser Asp Asn Pro Leu His 460 Gly Glu Ile Lys Leu Pro Gly Gln Ala Asn Arg Phe Tyr Glu Gly Ala 470 475 Ile Ser Glu His Leu Gln Ile Gly Ile Arg Ala Ile Asp Leu Leu Arg 490 Ala Glu Gly Asp Lys Leu His Ser Arg Lys Leu Arg Thr Phe Asn Glu 500 505 Pro Pro Phe Arg 515 <210> 6709 <211> 180 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(180) <400> 6709 Arg Val Leu Lys His Ile Ile Leu Thr Ala Ile Cys Ala Leu Leu Asn 5 . Leu Tyr Ala Lys Lys Phe Arg Cys Pro Asp Val Leu Thr Ser Ile Leu 20 25 Ser Met Phe Thr Leu Val Pro Asp Phe Ser Pro His Ser Pro Gly Ser 40 45 Leu Thr Met Thr Arg Lys Gln Ala Thr Ile Ala Val Arg Ser Gly Leu 5.5 60 Asn Asp Asp Glu Gln Tyr Gly Cys Val Val Pro Pro Ile His Leu Ser 70 75 Ser Thr Tyr Asn Phe Thr Gly Phe Asn Glu Pro Arg Ala His Asp Tyr 85 90 Ser Arg Arg Gly Asn Pro Thr Arg Asp Val Thr Gln Arg Ala Leu Ala

105

Glu Leu Glu Gly Gly Ala Gly Ala Val Leu Thr Asn Thr Gly Met Ser 120

Ala Ile His Leu Val Thr Thr Val Phe Leu Lys Pro Gly Asp Leu Leu

Val Ala Pro His Glu Cys Tyr Gly Gly His Tyr Pro Leu Phe Asp Ile

Pro Ala Asn Thr Gly Phe Tyr Leu Val Phe Leu Pro Pro Ser Ser Ile

135

150

110

125

140

170 175 Tyr Thr Thr Xaa` 180 <210> 6710 <211> 104 <212> PRT <213> Enterobacter cloacae <400> 6710 Pro Thr Ser Val Asn Leu Val Ala Ser Thr Leu Met Asn Gly Ala Leu 10 Ala Ser Leu Ala Arg Arg Ala Ile Ser Val Leu Pro Thr Pro Val 25 Gly Pro Ile Ile Arg Ile Phe Phe Gly Val Thr Ser Trp Arg Ser Ser Ser Ser Ser Cys Met Arg Arg Gln Arg Leu Arg Ser Ala Ile Ala Thr 55 Glu Arg Leu Ala Leu Ser Trp Pro Ile Met Cys Leu Phe Ser Ser Leu 75 70 Thr Ile Ser Arg Gly Val Ile Ser Asp Met Gly Asp Pro Tyr Ala Leu 85 90 Asp Gly Asn Ser Ser Met Val 100 <210> 6711 <211> 74 <212> PRT <213> Enterobacter cloacae <400> 6711 Gly Ser Pro Met Lys Lys Asp Ile His Pro Lys Tyr Glu Met Ile Thr Ala Asn Cys Ser Cys Gly Asn Ser Ile Gln Ile Arg Ser Thr Val Gly His Asp Leu Asn Leu Asp Val Cys Gly Lys Cys His Pro Phe Tyr Thr 40 Gly Lys Gln Arg Asp Val Ala Thr Gly Gly Arg Val Asp Arg Phe Asn Lys Arg Phe Ser Ile Pro Gly Ala Lys <210> 6712 <211> 255 <212> PRT <213> Enterobacter cloacae <400> 6712 Asn Tyr Thr Ala Leu Asp Ile Asn Ser Tyr Leu Pro Phe Gln Gln Arg 10 Trp Leu Ser Gly Cys Ile Tyr Phe Glu Gly Lys Arg Met Lys Leu Lys 20 25 Gln Leu Leu Phe Val Leu Pro Leu Leu Ser Cys Ala Ala Gln Ala Gly 40 Tyr Val Asp Tyr Arg His Glu Tyr Tyr Asp Asp Gly Arg Asn Tyr Asp 55 Arg Val Tyr Met Ser His Arg Phe Gly Thr Gly Phe Gly Val Ala Val 70 75 Glu Ala Val Ser Arg Ser Asp Glu Lys Gln Ser Asn Asp Ala Leu Asn 90

Asn Met Glu Ser Asn Ser Asn Glu Tyr Thr Ala Ser Tyr Gln Phe Thr

100 105 110 Trp Gln Gly Phe Ile Trp Gln Pro Gly Val Ala Val Glu Met Gly Asp 120 125 Asp Met Ala Ile Tyr Lys Pro Tyr Leu Arg Val Gln Tyr Asn Ile Asn 135 140 Glu Ser Trp Trp Thr Ala Phe Arg Tyr Arg Thr Glu Tyr Thr Arg Arg 155 150 Asn Ala Asp Gly Lys Asp Asp Arg Leu Val Tyr Arg Pro Glu Met Trp 170 165 Leu Gly Tyr Asn Ile Asp Asn Trp Met Phe Glu Leu Asn Gly Ile Tyr 185 Lys Phe Ala Asp Asn Glu Asp Leu Tyr Asn Asn Lys Lys Glu Asp Tyr 200 Glu Tyr Asn Phe Arg Val Ala Tyr Asn Ile Asp Ser Trp Val Pro Phe 220 215 Val Glu Val Gly Asn Val Ser Ser Gly Tyr Asn Thr Ala Thr Thr Asp 230 235 Asp Arg Gln Thr Arg Leu Arg Val Gly Leu Gly Tyr Asn Phe 250 245

<210> 6713 <211> 360

<212> PRT <213> Enterobacter cloacae

<400> 6713 Leu Ser Val Lys Met Val Arg Ser Ala Val Arg Cys Ser Gly Glu Glu Lys Thr Leu Lys Ser Arg Lys Glu Val Ala Ser Ala Thr Met Lys Asp Val Ala Glu Lys Ala Gln Val Ser Thr Ala Thr Val Ser Arg Ala Leu 40 Met Asn Pro Asp Lys Val Ser Gln Ala Thr Arg Asn Arg Val Glu Lys Ala Ala Leu Glu Val Gly Tyr Phe Pro Gln Ala Met Gly Arg Asn Val 70 75 Lys Arg Asn Glu Ser Arg Thr Ile Leu Val Ile Val Pro Asp Ile Cys 85 Asp Pro Phe Phe Ser Glu Ile Ile Arg Gly Ile Glu Val Thr Ala Ala 100 105 Ala Gln Gly Tyr Leu Val Leu Ile Gly Asp Cys Ala His Gln Asn Gln 120 115 Gln Glu Lys Thr Phe Ile Asp Leu Ile Ile Thr Lys Gln Ile Asp Gly 135 140 Met Leu Leu Gly Ser Arg Leu Pro Phe Asp Ala Ser Ile Glu Glu 150 155 Gln Arg Asn Leu Pro Pro Met Val Met Ala Asn Glu Phe Ala Pro Glu 170 165 Leu Glu Leu Pro Thr Val His Ile Asp Asn Leu Thr Ala Ala Phe Asn 185 180 Ala Val Asn Tyr Leu Gln Glu Leu Gly His Lys Arg Ile Gly Cys Ile 200 205 Ala Gly Pro Glu Glu Met Pro Leu Cys His Tyr Arg Leu Gln Gly Tyr 215 220 Val Gln Ala Leu Arg Arg Thr Gly Ala Ile Val Asp Pro His Tyr Ile 230 235 Ala Arg Gly Asp Phe Thr Phe Glu Ala Gly Gly Gln Ala Leu Glu Lys 250 245 Leu Leu Ala Leu Pro Glu Pro Pro Thr Ala Val Phe Cys His Ser Asp 265 Val Met Ala Leu Gly Ala Leu Ser Tyr Ala Lys Arg His Gly Leu Arg

280 285 Val Pro Gln Asp Leu Ser Ile Ile Gly Phe Asp Asn Ile Ser Leu Ser 295 300 Glu Phe Cys Asp Pro Pro Leu Ser Thr Val Ala Gln Pro Arg Tyr Asp 310 315 Ile Gly Arg Glu Ala Met Leu Leu Leu Leu Asp Gln Leu His Gly Gln 330 Thr Val Ser Ser Gly Ser Arg Leu Leu Asp Cys Glu Leu Ile Val Arg 345 Gly Ser Thr Gln Ala Leu Thr 360 <210> 6714 <211> 153 <212> PRT <213> Enterobacter cloacae <400> 6714 Thr Lys Cys Arg Gly Thr Asn Lys Pro Arg Arg Ser Val Ser Lys His Cys Ser Ala Ser Val Arg Leu Ser Ser Lys Arg Asn Ser Ser Ser Gly Arg Arg Arg Ser Arg Tyr Ser Ser Arg Val His Asn Arg Ser Ser Arg 40 Arg Val Pro Tyr Lys Leu Ser Leu Ser Ser Ser Asn Arg Arg Ser 55 Arg Arg Ser Lys Arg His Ser Arg Ile Arg Ile Cys Cys Arg Arg Leu 70 Arg Ile Pro Leu Arg Asn Ser Gln Lys Arg Ser Arg Leu Arg Arg Ser 90 85 Pro Lys Arg Pro Arg Cys Arg Ser Arg Arg Leu Arg Lys Lys Met Asn 105 110 Ala Ala Gly Trp Phe Ser Ala Val Arg Leu Lys Ala Pro Asn Arg Gln 120 Lys Arg Cys Val Leu Ser Trp His Leu Lys Asp Leu Thr His Ala Leu 135 Pro Pro Ile Thr Ala Gly Ile Ala 150 <210> 6715 <211> 182 <212> PRT <213> Enterobacter cloacae <400> 6715 Pro Gly Gly Leu Leu Val Thr Thr Ile Val Ser Val Arg Arg Asn Gly 1.0 Gln Val Val Ile Ala Gly Asp Gly Gln Ala Thr Leu Gly Asn Thr Val 25 Met Lys Gly Asn Val Lys Lys Val Arg Arg Leu Tyr Asn Asp Lys Val 40 Ile Ala Gly Phe Ala Gly Gly Thr Ala Asp Ala Phe Thr Leu Phe Glu 55 Leu Phe Glu Arg Lys Leu Glu Met His Gln Gly His Leu Val Lys Ala 75 Ala Val Glu Leu Ala Lys Asp Trp Arg Thr Asp Arg Met Leu Arg Lys 90 Leu Glu Ala Leu Leu Ala Val Ala Asp Glu Asn Ala Ser Leu Ile Ile Thr Gly Asn Gly Asp Val Val Gln Pro Glu Asn Asp Leu Ile Ala Ile

Gly Ser Gly Gly Pro Tyr Ala Gln Ala Ala Ala Arg Ala Leu Leu Glu
130

Asn Thr Asp Met Asn Ala Arg Asp Ile Ala Val Lys Ala Leu Asp Ile
145

Ala Gly Asp Ile Cys Ile Tyr Thr Asn His Asn His Thr Ile Glu Glu
165

Leu Pro Ser Lys Ala

<210> 6716 <211> 358 <212> PRT <213> Enterobacter cloacae

Thr Pro Arg Leu Glu Asn 355

180

<400> 6716 Gly Ser Pro Met Ser Glu Met Thr Pro Arg Glu Ile Val Ser Glu Leu 10 Asn Lys His Ile Ile Gly Gln Asp Asn Ala Lys Arg Ser Val Ala Ile 25 Ala Leu Arg Asn Arg Trp Arg Arg Met Gln Leu Asp Glu Glu Leu Arg 40 His Glu Val Thr Pro Lys Asn Ile Leu Met Ile Gly Pro Thr Gly Val Gly Lys Thr Glu Ile Ala Arg Arg Leu Ala Lys Leu Ala Asn Ala Pro 75 Phe Ile Lys Val Glu Ala Thr Lys Phe Thr Glu Val Gly Tyr Val Gly 85 Lys Glu Val Asp Ser Ile Ile Arg Asp Leu Thr Asp Ser Ala Ile Lys 100 105 Met Val Arg Val Gln Ala Ile Glu Lys Asn Arg Tyr Arg Ala Glu Glu 120 Met Ala Glu Glu Arg Ile Leu Asp Val Leu Ile Pro Pro Ala Lys Asn 135 Asn Trp Gly Gln Ala Glu Gln Gln Ser Glu Pro Ser Ala Ala Arg Gln 150 155 Ala Phe Arg Lys Leu Arg Glu Gly Glu Leu Asp Asp Lys Glu Ile 170 165 Glu Ile Asp Leu Ala Ala Pro Met Gly Val Glu Ile Met Ala Pro 185 180 Pro Gly Met Glu Glu Met Thr Ser Gln Leu Gln Ser Met Phe Gln Asn 195 200 205 Leu Gly Gly Gln Lys Gln Lys Ala Arg Lys Leu Lys Ile Lys Asp Ala 215 220 Met Lys Leu Leu Ile Glu Glu Glu Ala Ala Lys Leu Val Asn Pro Glu 230 235 Glu Leu Lys Gln Asp Ala Ile Asp Ala Val Glu Gln His Gly Ile Val 250 245 Phe Ile Asp Glu Ile Asp Lys Ile Cys Lys Arg Gly Asn Ala Ser Gly 260 265 270 Pro Asp Val Ser Arg Glu Gly Val Gln Arg Asp Leu Leu Pro Leu Val 280 Glu Gly Cys Thr Val Ser Thr Lys His Gly Met Val Lys Thr Asp His 295 Ile Leu Phe Ile Ala Ser Gly Ala Phe Gln Ile Ala Ser Pro Ser Asp 310 315 Leu Ile Pro Glu Leu Gln Gly Arg Leu Pro Ile Arg Val Glu Leu Gln 325 330 Ala Leu Thr Thr Glu Asp Phe Glu Arg Ile Leu Thr Glu Pro Ile Leu 345 340

<210> 6717 <211> 775 <212> PRT <213> Enterobacter cloacae

<400> 6717 Val Leu Trp Arg Lys Ile His Gln Arg Arg Ile Ile Gln Asn Leu 10 Thr Asn Val Cys Lys Leu Ile Arg Thr Pro Leu Ser Leu Met Cys Ile 20 25 Leu Thr Arg His Phe Ser Ser Gln Glu Asp Ser Met Pro Val Ala His 45 40 Val Ala Leu Pro Val Pro Leu Pro Arg Thr Phe Asp Tyr Leu Leu Pro 55 60 Asp Ser Met Ser Ala Lys Ala Gly Cys Arg Val Thr Val Pro Phe Gly 70 75 Lys Gln Gln Arg Val Gly Ile Val Val Ser Val Ser Asp Lys Ser Glu 90 Leu Pro Leu Asn Glu Leu Lys Ser Val Val Glu Val Leu Asp Ser Glu 105 Pro Val Tyr Ser Thr Ser Thr Trp Arg Leu Leu Trp Ala Ala Asp 120 125 115 Tyr Tyr His His Pro Ile Gly Asp Val Leu Phe His Ala Leu Pro Ile 135 Met Leu Arg Gln Gly Lys Ser Ala Ser His Ala Pro Met Trp Tyr Trp 150 Phe Ala Thr Glu Gln Gly Gln Ala Val Asp Ile Asn Ser Leu Lys Arg 165 170 Ser Gln Lys Gln Gln Gln Ala Leu Ala Leu Arg Gln Gly Lys Ile 185 Trp Arg His Gln Val Asp Glu Leu Glu Val Ser Glu Thr Ala Leu Gln 195 200 Ala Leu Arg Lys Lys Gly Leu Ser Glu Leu Ala Ser Glu Ala Pro Ala 215 Leu His Asp Trp Arg Asp Gly Phe Ser Val Ser Gly Asp Arg Leu Arg 230 235 Leu Asn Thr Glu Gln Ala Thr Ala Val Gly Ala Ile His Ser Ala Ala 250 245 Asp Arg Phe Ser Ala Trp Leu Leu Ala Gly Val Thr Gly Ser Gly Lys 260 265 Thr Glu Val Tyr Leu Ser Val Leu Glu Asn Val Leu Ala Gln Gly Lys 280 Gln Ala Leu Val Met Val Pro Glu Ile Gly Leu Thr Pro Gln Thr Ile 300 295 Ala Arg Phe Arg Glu Arg Phe Asn Ala Pro Val Glu Val Leu His Ser 315 310 Gly Leu Asn Asp Ser Glu Arg Leu Ser Ala Trp Leu Lys Ala Lys Asn 330 325 335 Gly Glu Ala Ala Ile Val Ile Gly Thr Arg Ser Ser Leu Phe Thr Pro 345 Phe Lys Asn Leu Gly Val Ile Val Ile Asp Glu Glu His Asp Ser Ser 360 Tyr Lys Gln Gln Glu Gly Trp Arg Tyr His Ala Arg Asp Leu Ala Val 375 380 Tyr Arg Ala His Ser Glu Gln Ile Pro Ile Ile Leu Gly Ser Ala Thr 390 395 Pro Ala Leu Glu Thr Leu His Asn Val Arg Gln Arg Lys Tyr His Met 405 410 Leu Arg Leu Thr Arg Arg Ala Gly Asn Ala Arg Pro Ala Ile Gln His

Val Leu Asp Leu Lys Gly Gln Gln Val Gln Ala Gly Leu Ala Pro Ala 440 Leu Ile Ser Arg Met Arg Gln His Leu Gln Ala Gly Asn Gln Val Ile 455 460 Leu Phe Leu Asn Arg Arg Gly Phe Ala Pro Ala Leu Leu Cys His Asp 470 475 Cys Gly Trp Ile Ala Glu Cys Pro Arg Cys Asp His Tyr Tyr Thr Phe 485 490 His Gln Ala Gln Arg His Leu Arg Cys His His Cys Asp Ser Gln Arg 505 Pro Val Pro Arg Gln Cys Pro Ser Cys Gly Ser Thr His Ile Val Pro 520 525 Val Gly Leu Gly Thr Glu Gln Leu Glu Gln Ala Leu Ala Pro Phe Phe 535 540 Pro Asp Val Pro Ile Ser Arg Ile Asp Arg Asp Thr Thr Ser Arg Lys 550 555 Gly Ala Leu Glu Gln Gln Leu Ala Glu Val His Arg Gly Gly Ala Arg 570 565 Ile Leu Ile Gly Thr Gln Met Leu Ala Lys Gly His His Phe Pro Asp 580 585 Val Thr Leu Val Ala Leu Leu Asp Val Asp Gly Ala Leu Phe Ser Ala 600 Asp Phe Arg Ser Ala Glu Arg Phe Ala Gln Leu Tyr Thr Gln Val Ala 615 620 Gly Arg Ala Gly Arg Ala Gly Lys Gln Gly Glu Val Val Leu Gln Thr 630 635 His His Pro Glu His Pro Leu Leu Gln Thr Leu Leu His Lys Gly Tyr 650 Asp Ala Phe Ala Asp Gln Ala Leu Ala Glu Arg Gln Thr Met Gln Leu 665 Pro Pro Trp Thr Ser His Val Ile Ile Arg Ala Glu Asp His Asn Asn 680 Gln Gln Ala Pro Leu Phe Leu Gln Gln Leu Arg Asn Leu Leu Gln Ala 695 700 Ser Pro Leu Val Asp Asn Gln Leu Trp Ile Leu Gly Pro Val Pro Ala 715 Leu Ala Pro Lys Arg Gly Gly Arg Phe Arg Trp Gln Leu Leu Gln 730 725 His Pro Ser Arg Ile Arg Leu Gln Gln Ile Val Ser Gly Thr Leu Ala 745 Leu Ile Asn Thr Leu Pro Glu Ala Arg Lys Val Lys Trp Val Leu Asp 755 Val Asp Pro Ile Glu Gly 770

<210> 6718

<211> 109

<212> PRT

<213> Enterobacter cloacae

## <400> 6718

 Arg Tyr Leu Met
 Ala Glu Trp Ser Gly Glu Tyr Ile Ser Pro Tyr Ala

 1
 5
 10
 15

 Glu His Gly Lys Lys Ser Glu Gln Val Lys Lys Ile Thr Val Ser Ile
 20

 Pro Leu Lys Val Leu Lys Ile Leu Thr Asp Glu Arg Thr Arg Arg Gln
 30

 Val Asn Asn Leu Arg His Ala Thr Asn Ser Glu Leu Leu Cys Glu Ala

 50
 55

 Phe Leu His Ala Phe Thr Gly Gln Pro Leu Pro Asn Asp Asp Asp Leu

Arg Lys Glu Arg Ser Asp Glu Ile Pro Glu Glu Ala Lys Val Ile Met 85 90 Arg Glu Leu Gly Ile Asp Pro Glu Thr Trp Glu Tyr

100

<210> 6719

<211> 332

<212> PRT

<213> Enterobacter cloacae

<400> 6719

Arg Thr Asn Lys Tyr Ser Glu Thr Ile Val Ala Gln Arg Asp Tyr Val 10

Arg Arg Gly Gln Pro Ala Pro Ser Arg Arg Lys Lys Ser Ser Ser Lys 20 25

Ser Lys Gln Arg Ser Leu Ser Ala Val Ser Pro Ala Met Val Ala Ile 40

Ala Ala Ala Val Leu Val Ala Phe Ile Gly Gly Leu Tyr Phe Ile Thr

His His Lys Lys Glu Glu Ser Glu Ala Leu Gln Gly Asn Lys Val Val 70

Gly Asn Gly Leu Pro Pro Lys Pro Glu Glu Arg Trp Arg Tyr Ile Lys 85 90

Glu Leu Glu Ser Arg Gln Pro Gly Val Arg Ala Pro Thr Glu Pro Ser 110 105

Ala Gly Gly Glu Val Lys Asn Ala Asp Gln Leu Thr Asp Glu Gln Arg 120 125

Gln Leu Leu Ala Gln Met Gln Ala Asp Met Arg Gln Gln Pro Thr Gln 135 140

Leu Asn Glu Val Pro Trp Asn Glu Gln Thr Pro Ala Gln Arg Gln Gln 150 155

Thr Leu Gln Arg Gln Arg Gln Ala Gln Gln Gln Thr Gln Gln Gln Gln 170

Trp Thr Gln Thr Gln Pro Val Gln Gln Pro Arg Ser Gln Pro Gln Gln 185

Gln Thr Arg Thr Val Gln Thr Gln Pro Val Gln Gln Pro Lys Ala 200

Gln Pro Gln Lys Gln Thr Ala Gln Pro Tyr Gln Asp Leu Leu Gln Thr 220 215

Pro Ala His Thr Thr Ala Gln Gln Pro Lys Thr Gln Gln Ala Ala Pro 230 235

Val Thr Lys Glu Thr Glu Val Pro Lys Gln Thr Ala Glu Lys Lys Asp 250 245

Glu Arg Arg Trp Met Val Gln Cys Gly Ser Phe Lys Gly Ala Glu Gln 260 265

Ala Glu Thr Val Arg Ala Gln Leu Ala Phe Glu Gly Phe Asp Ser Arg 280

Ile Thr Thr Asn Asn Gly Trp Asn Arg Val Ile Gly Pro Val Lys 295

Gly Lys Glu Asn Ala Asp Gly Thr Ile Ser Arg Leu Lys Val Ala Gly 315 310

His Thr Asn Cys Ile Arg Leu Ala Ser Gly Gly 325

<210> 6720

<211> 714

<212> PRT

<213> Enterobacter cloacae

<400> 6720

Leu Asn Gly Asp Gln His Ala Gly Leu Leu Val Leu Pro Gly Met Asp

10 Pro Asn Ala Cys His Leu Pro Asp Leu Arg Val Arg Ala Ile Arg Ser 25 His His Gln Leu Tyr Gly Gln Leu Ile Val Val Gln Arg Gln Glu 40 Ile Pro Ala Leu Met Thr Met Gln Ala Phe Gln Arg Val Arg His Ala 55 Gln Arg His Leu Arg Val Arg Leu Gln Arg Leu Pro Glu Cys Leu Leu 75 70 Glu His Val Val Phe His His Ile Ala Gln Ala Arg Gln Phe Gln Leu 90 85 Gly Gly Ile Lys Arg His Met Ser Ile Phe Pro Leu Pro Gly Phe Glu 110 100 105 Thr Ala Val Arg Met Arg Ala His Arg Gln His Arg Leu Pro Asp Ala 120 Gln Pro Ala Lys Gln Ile Asn Arg Gly Arg Ala Asp Gly Gly Asn Thr 135 Tyr Val Arg Leu Ala Gly Arg Ile Glu Cys Arg Arg Ser Arg Leu Phe 150 155 Asn Asn Gly Tyr Val Lys Ser Leu Leu Arg Gln Pro Gln Arg Gln Cys 165 170 Ala Ala Asp His Thr Ala Ala Asn Asn Gly Asn Phe Gly Val Gln Glu 180 185 Cys His Gly His Tyr Ser Leu Leu Lys Asn Thr Leu Ser Leu Pro Asp 195 200 Phe Cys Gly Pro Glu Val Asp Asn Leu His Thr Gly His Asn Arg Thr 215 220 Lys Ala Leu Gln Tyr Ala Ala Cys Asn Pro Glu Leu Ser Lys Ser Met 235 230 Thr Lys Lys Leu His Ile Lys Thr Trp Gly Cys Gln Met Asn Glu Tyr 250 245 Asp Ser Ser Lys Met Ala Asp Leu Leu Asp Thr Thr His Gly Tyr Gln 260 265 270 Leu Thr Glu Asn Ala Lys Glu Ala Asp Val Leu Leu Leu Asn Thr Cys 280 285 Ser Ile Arg Glu Lys Ala Gln Glu Lys Val Phe His Val Leu Gly Arg 295 300 Trp Lys Leu Leu Lys Arg Lys Asn Pro Asp Leu Ile Ile Gly Val Gly 315 310 Gly Cys Val Ala Ser Gln Glu Gly Lys Leu Ile Arg Gln Arg Ala Pro 325 330 Tyr Val Asp Ile Val Phe Gly Pro Gln Thr Leu His Arg Leu Pro Glu 345 Met Ile Asn Gln Val Arg Gly Ser Arg Ser Pro Val Val Asp Val Ser 360 Phe Pro Glu Ile Glu Lys Phe Asp Arg Leu Pro Glu Pro Arg Ala Asp 375 380 Gly Pro Thr Ala Phe Val Ser Ile Met Glu Gly Cys Asn Lys Tyr Cys 395 Thr Tyr Cys Val Val Pro Tyr Thr Arg Gly Glu Glu Val Ser Arg Pro 405 410 Ala Asp Asp Ile Leu Phe Glu Ile Ala Gln Leu Ala Ala Gln Gly Val 425 420 Arg Glu Val Asn Leu Leu Gly Gln Asn Val Asn Ala Trp Arg Gly Glu 440 435 Asn Tyr Asp Gly Thr Thr Gly Ser Phe Ala Glu Leu Leu Arg Leu Val 455 460 Ala Ala Ile Asp Gly Ile Asp Arg Ile Arg Phe Thr Thr Ser His Pro 470 475 Met Glu Phe Thr Asp Asp Ile Ile Asp Val Tyr Arg Asp Thr Pro Glu 485 490

Leu Val Ser Phe Leu His Leu Pro Ile Gln Cys Gly Ser Asp Arg Val 500 505 Leu Asn Leu Met Gly Arg Pro His Thr Val Leu Glu Tyr Lys Ser Thr 520 525 Ile Arg Lys Leu Arg Glu Ala Arg Pro Asp Ile Gln Ile Ser Ser Asp 535 540 Phe Ile Val Gly Phe Pro Gly Glu Thr Ala Asp Asp Phe Glu Arg Thr 550 555 Met Lys Leu Ile Gly Glu Val Asn Phe Asp Val Ser Tyr Ser Phe Ile 565 570 Phe Ser Ala Arg Pro Gly Thr Pro Ala Ala Asp Met Val Asp Asp Val 585 Pro Glu Glu Glu Lys Lys Gln Arg Leu Tyr Ile Leu Gln Glu Arg Ile 600 Asn Gln Gln Ala Asn Ala Trp Ser Arg Arg Met Leu Gly Thr Val Gln 615 620 Arg Ile Leu Val Glu Gly Thr Ser Arg Lys Ser Ile Met Glu Leu Ser 630 635 Gly Arg Thr Glu Asn Asn Arg Val Val Asn Phe Glu Gly Thr Pro Asp 645 650 Met Ile Gly Lys Phe Val Asp Val Glu Ile Val Glu Val Leu Thr Asn 660 665 670 Ser Leu Arg Gly Lys Val Val Arg Thr Glu Asp Glu Met Gly Leu Arg 675 680 685 Ile Ala Gln Thr Pro Glu Ser Val Ile Ser Arg Thr Arg Lys Val Asn 695 Asp Ser Gly Val Gly Ile Tyr Gln Pro 705 710

<210> 6721

<211> 158

<212> PRT

<213> Enterobacter cloacae

<400> 6721

Thr Glu Met Ser Gln Val Ile Leu Asp Leu Gln Leu Ala Cys Glu Asp 10 Asn Ser Gly Met Pro Glu Glu Ala Gln Phe Gln Lys Trp Leu Asp Ala Val Ile Pro Gln Phe Gln Glu Glu Ser Glu Val Thr Ile Arg Leu Val Asp Glu Ala Glu Ser His Glu Leu Asn Leu Thr Tyr Arg Gly Lys Asp 55 Lys Pro Thr Asn Val Leu Ser Phe Pro Phe Glu Ala Pro Pro Gly Ile Glu Met Pro Leu Leu Gly Asp Leu Ile Ile Cys Arg Gln Val Val Glu Gln Glu Ala Lys Glu Gln Gln Lys Pro Leu Glu Ala His Trp Ala His 105 100 110 Met Val Val His Gly Ser Leu His Leu Leu Gly Tyr Asp His Ile Glu 120 125 Asp Asp Glu Ala Glu Glu Met Glu Ser Leu Glu Thr Glu Ile Met Leu 135 Ala Leu Gly Tyr Glu Asp Pro Tyr Ile Ala Glu Lys Glu 150

<210> 6722

<211> 321

<212> PRT

<213> Enterobacter cloacae

<400> 6722 Ser Val Thr Asp Tyr His Ala Ala Ala Gln Gly His Ser Ala Ala Val 10 Asn Val Glu Leu Thr Arq Glu Pro Leu Thr Asn Ala Met Ser Asp Asp 25 Asn Ser His Ser Ser Asp Thr Thr Thr Lys Lys Gly Phe Phe Ser Leu Ile Leu Asn Gln Leu Phe His Gly Glu Pro Lys Asn Arg Asp Glu Leu Leu Glu Leu Ile Arg Asp Ser Gly Gln Asn Asp Leu Ile Asp Glu Asp Thr Arg Glu Met Leu Glu Gly Val Met Asp Ile Ala Asp Gln Arg 8.5 Val Arg Asp Ile Met Ile Pro Arg Ser Gln Met Ile Thr Leu Lys Arg 105 100 Asn Gln Thr Leu Asp Glu Cys Leu Asp Val Ile Ile Glu Ser Ala His 120 125 Ser Arg Phe Pro Val Ile Ser Glu Asp Lys Asp His Ile Glu Gly Ile 135 140 Leu Met Ala Lys Asp Leu Leu Pro Phe Met Arg Ser Asp Ala Glu Ala 150 155 Phe Ser Met Glu Lys Val Leu Arg Pro Ala Val Val Pro Glu Ser 165 170 Lys Arg Val Asp Arg Met Leu Lys Glu Phe Arg Ser Gln Arg Tyr His 180 185 Met Ala Ile Val Ile Asp Glu Phe Gly Gly Val Ser Gly Leu Val Thr 200 205 Ile Glu Asp Ile Leu Glu Leu Ile Val Gly Glu Ile Glu Asp Glu Tyr 215 Asp Glu Glu Glu Asp Ile Asp Phe Arg Gln Leu Ser Arg His Thr Trp 230 Thr Val Arg Ala Leu Ala Ser Ile Glu Asp Phe Asn Asp Thr Phe Gly 250 Thr Ser Phe Ser Asp Glu Glu Val Asp Thr Ile Gly Gly Leu Val Met 265 Gln Ala Phe Gly His Leu Pro Ala Arg Gly Glu Thr Val Asp Ile Asp 280 Gly Tyr Gln Phe Lys Val Ala Met Ala Asp Ser Arg Arg Ile Ile Gln 295 300 Val His Val Arg Met Pro Asp Asp Ser Pro Val Pro Lys Leu Glu Asp

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<210> 6723
<211> 409
<212> PRT
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<213> Enterobacter cloacae

<400> 6723

 Val
 Phe
 Thr
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 Asp
 Pro
 Pro
 Gly
 Leu
 Pro
 Val
 Arg
 Gln
 Ala
 Leu

 Tyr
 Phe
 Leu
 Ser
 Ser
 Pro
 Pro
 Ile
 Ser
 Thr
 Ala
 Thr
 Leu
 Ala
 Pro
 Leu

 The
 Cys
 Gly
 Val
 Asn
 Asn
 Phe
 Gly
 Asn
 Asp
 Arg
 Phe
 Ile
 Thr
 Pro
 Pro
 Cys
 Asp
 Asp
 Ile
 Asp
 Phe
 Ile
 Asp
 Asp
 Ile
 Asp
 Asp
 Ile
 Inch
 Ile
 Ile
 Inch
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 Inch
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 Inch
 90 85 Gly Ile Glu Ile Asn Arg Arg Asp Asn His Phe Lys Leu Thr Gly Arg 105 100 Pro Ile Cys Val Asn Ala Ala Ala Asp Ile Leu Arg Ser Leu Tyr Val 120 125 Asp Thr Ala Pro Met Arg Gly Glu Ile Gln Asp Ile Glu Pro Glu Gln 135 140 Ile His Leu Ala Ile Lys Glu Ala Arg Val Leu Glu Gln Ser Ala Glu 150 155 Ser Val Pro Asp Tyr Gly Lys Ala Ile Asn Ile Lys Thr Lys Arg Gly 170 Val Ile Lys Pro Arg Thr Pro Asn Gln Ala Gln Tyr Ile Ala Asn Ile 185 Leu Asp His Asp Ile Thr Phe Gly Val Gly Pro Ala Gly Thr Gly Lys 200 205 Thr Tyr Leu Ala Val Ala Ala Val Asp Ala Leu Glu Arg Gln Glu 215 220 210 Ile Arg Arg Ile Leu Leu Thr Arg Pro Ala Val Glu Ala Gly Glu Lys 230 235 Leu Gly Phe Leu Pro Gly Asp Leu Ser Gln Lys Val Asp Pro Tyr Leu 245 250 Arg Pro Leu Tyr Asp Ala Leu Phe Glu Met Leu Gly Phe Glu Lys Val 260 265 Glu Lys Leu Ile Glu Arg Asn Val Ile Glu Val Ala Pro Leu Ala Tyr 280 275 285 Met Arg Gly Arg Thr Leu Asn Asp Ala Phe Ile Ile Leu Asp Glu Ser 295 300 Gln Asn Thr Thr Ile Glu Gln Met Lys Met Phe Leu Thr Arg Ile Gly 310 315 Phe Asn Ser Lys Ala Val Ile Thr Gly Asp Val Thr Gln Ile Asp Leu 325 330 335 Pro Arg Asn Thr Lys Ser Gly Leu Arg His Ala Ile Glu Val Leu Ala 345 Glu Val Glu Glu Ile Ser Phe Asn Phe Phe His Ser Glu Asp Val Val 360 Arg His Pro Val Val Ala Arg Ile Val Asn Ala Tyr Glu Ala Trp Glu 375 380 Glu Ala Asp Gln Lys Arg Arg Ala Glu Leu Ala Ala Glu Arg Lys Arg 390 395 Glu Ala Gln Glu His Glu Gln Lys 405

<210> 6724

<211> 256

<212> PRT

<213> Enterobacter cloacae

## <400> 6724

Gln Ala Cys Ile Thr Leu His Ser His Cys Ala Arg Tyr Asn Asn Ile 10 Thr Met Gly Ile Tyr Ala Ser Leu Ala Leu Ile Arg Lys Glu Leu Gly 25 Met Gln Leu Arg Lys Leu Ala Thr Ala Met Leu Val Met Gly Met Ser 40 45 Ala Gly Val Val His Ala Glu Asp Ala Pro Ala Ala Gly Ser Thr Leu 55 60 Asp Lys Ile Ala Lys Asn Gly Val Ile Val Val Gly His Arg Glu Ser 70 75 Ser Val Pro Phe Ser Tyr Tyr Asp Asn Thr Gln Lys Val Val Gly Tyr 8.5 90 Ser Gln Asp Tyr Ser Asn Ala Ile Val Glu Ala Val Lys Lys Leu

105 100 110 Asn Lys Pro Asp Leu Gln Val Lys Leu Ile Pro Ile Thr Ser Gln Asn 120 125 Arg Ile Pro Leu Leu Gln Asn Gly Thr Phe Asp Phe Glu Cys Gly Ser 135 140 Thr Thr Asn Asn Leu Glu Arg Gln Lys Gln Ala Ala Phe Ser Asp Thr 155 150 Ile Phe Val Val Gly Thr Arg Leu Leu Thr Lys Lys Gly Gly Asp Ile 165 170 Lys Asp Phe Ala Asp Leu Lys Gly Lys Ala Val Val Thr Ser Gly 185 190 Thr Thr Ser Glu Val Leu Leu His Lys Leu Asn Asp Glu Lys Lys Met 200 Asp Met Arg Ile Ile Ser Ala Lys Asp His Gly Asp Ser Phe Arg Thr 215 Leu Glu Ser Gly Arg Ala Val Ala Phe Met Met Asp Asp Ala Leu Leu 230 235 Ala Gly Glu Arg Ala Lys Ala Lys Lys Pro Asp Asn Trp Glu Ile Val 250

<210> 6725 <211> 513

<212> PRT

<213> Enterobacter cloacae

<400> 6725 Met Ala Phe Ala Pro Leu Val Glu Arg Gln Arg Val Arg Leu Leu 10 Ala Leu Leu Gly Ala Ser Gly Thr Leu Ala Phe Ser Pro Tyr Asp 20 25 Ile Trp Pro Ala Ala Ile Leu Ser Leu Met Gly Leu Gln Gly Leu Thr 4 O Leu Asn Arg Arg Pro Val Gln Ala Ala Ala Ile Gly Tyr Phe Trp Gly 55 60 Leu Gly Leu Phe Gly Ser Gly Ile Asn Trp Val Tyr Val Ser Ile Ala 70 75 Gln Phe Gly Gly Met Pro Gly Pro Val Asn Val Phe Leu Val Val Leu 85 90 Leu Ala Ala Tyr Leu Ser Leu Tyr Thr Gly Leu Phe Ala Gly Ile Leu 100 105 110 Ser Arg Leu Trp Pro Lys Thr Thr Trp Leu Arg Val Ala Ile Ala Ala 120 Pro Val Val Trp Gln Ile Thr Glu Phe Leu Arg Gly Trp Val Leu Thr 135 140 Gly Phe Pro Trp Leu Gln Phe Gly Tyr Ser Gln Val Asp Gly Pro Leu 150 155 Lys Gly Leu Ala Pro Val Met Gly Val Glu Ala Ile Asn Phe Leu Leu 165 170 Met Ile Val Ser Gly Leu Leu Val Leu Ala Leu Val Thr Arg Asn Trp 185 190 180 Lys Pro Leu Val Ala Ala Leu Ile Leu Phe Ala Leu Pro Phe Pro Leu 200 205 Arg Tyr Ile Gln Trp Phe Thr Leu Glu Pro Ala Arg Ala Thr Gln Val 215 220 Ser Leu Val Gln Gly Asp Ile Pro Gln Ser Leu Lys Trp Asp Glu Asn 230 235 Gln Leu Leu Asn Thr Leu Lys Ile Tyr Ala Asn Ala Thr Glu Lys Val 245 250 Met Gly Lys Ser Gln Leu Ile Ile Trp Pro Glu Ser Ala Ile Pro Asp 265 Leu Glu Ile Asn Gln Gln Pro Phe Leu Lys Met Met Asp Asp Leu Leu

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280
Arg Ala Arg Gly Ser Thr Leu Ile Thr Gly Ile Val Asp Ala Arg Leu
                        295
                                            300
Asn Gln Gln Asn Arg Tyr Asp Thr Tyr Asn Thr Ile Ile Thr Leu Gly
                    310
                                        315
Lys Gly Ser Glu Tyr Ser Tyr Thr Ser Thr Asn Arg Tyr Asn Lys Asn
                                    330
                325
His Leu Val Pro Phe Gly Glu Phe Val Pro Leu Glu Ser Ile Leu Arg
                                345
                                                     350
            340
Pro Leu Ala Pro Phe Phe Asp Leu Pro Met Ser Ser Phe Ser Arg Gly
                            360
Pro Tyr Val Gln Pro Gln Leu His Ala His Gly Phe Ala Leu Thr Ala
                        375
                                             380
Ala Ile Cys Tyr Glu Ile Ile Leu Gly Glu Gln Val Arg Asp Asn Phe
                    390
                                         395
Arg Pro Asp Thr Asp Tyr Leu Leu Thr Ile Ser Asn Asp Ala Trp Phe
                405
                                    410
Gly Lys Ser Ile Gly Pro Trp Gln His Phe Gln Met Ala Arg Met Arg
                                425
Ser Leu Glu Leu Ala Arg Pro Leu Leu Arg Ser Thr Asn Asn Gly Ile
                            440
Thr Ala Val Ile Gly Pro Gln Gly Glu Ile Gln Ala Met Ile Pro Gln
                        455
                                            460
Phe Thr Arg Glu Val Leu Ser Thr Asn Val Thr Pro Thr Thr Gly Leu
                    470
                                         475
Thr Pro Tyr Ala Arg Thr Gly Asn Trp Pro Leu Trp Ile Leu Thr Val
                                    490
                485
Leu Phe Gly Phe Gly Ala Val Leu Met Ser Leu Arg Gln Arg Arg Lys
                                505
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<210> 6726
<211> 396
<212> PRT
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<213> Enterobacter cloacae

<400> 6726 Gly Ile Val Thr Met Thr Leu Leu Asn Thr Glu Val Ala Val Val Gly 10 Gly Gly Met Val Gly Gly Ala Leu Ala Leu Gly Leu Ala Gln Gln Gly 25 Phe Asp Val Thr Val Ile Glu Gln Ala Ala Pro Pro Ala Phe Asp Pro 40 45 Ala Ser Gln Pro Asp Val Arg Ile Ser Ala Ile Ser Ala Ala Ser Val 55 Asp Leu Leu Arg Gly Leu Gly Val Trp Glu Ala Val Leu Ala Met Arg 70 Ala His Pro Tyr Ser Arg Leu Glu Thr Trp Glu Trp Glu Asn Ala His Val Ser Phe Asp Ala Ala Glu Leu Lys Leu Pro Arg Leu Gly Tyr Met 105 Val Glu Asn Asn Val Leu Gln Gln Ala Leu Trp Gln Ala Leu Glu Ala 120 His Pro Lys Val Thr Leu Arg Val Pro Asp Ser Leu Lys Gly Leu His 135 140 Arg His Glu Gly Gly Tyr Leu Leu Thr Leu Asp Asn Asn Asp Glu Leu 150 155 Ala Val Lys Leu Val Val Gly Ala Asp Gly Ala Asn Ser Gln Val Arg 165 170 Gln Met Ala Gly Ile Gly Ile His Ala Trp Gln Tyr Gln Gln Ser Cys

				2851											
			180					185					190		
Met	Leu	Ile 195		Val	Gln	Ser	Glu 200		Ala	Pro	Gly	Glu 205		Thr	Trp
	His 210					215					220				
225					230					235					240
	Gln	_		245					250					255	
	Pro		260		-			265					270		
	Leu	275					280					285			
	Val 290					295					300				
305					310					315					320
	Ala		•	325					330					335	
_	Tyr		340	-	_			345					350		
	Asp	355					360					365			
	Val 370					375					Arg 380	Ala	Gly	Gly	Leu
Lys 385	Arg	Gln	Ala	Leu	Lys 390	Tyr	Ala	Leu	Gly	Leu 395					
	0> 6														
<211> 99 <212> PRT															
<213> Enterobacter cloacae															
< 40	0> 6	727												•	
	Glu		Ile	Arg 5	Pro	His	Tyr	Ser	Glu 10	Gln	Gln	Lys	Gln	Lys 15	Ser
Pro	Gln	Ser	Gly 20	Leu	Val	Cys	Leu	Lys 25	Trp	Leu	Gly	Cys	Arg 30	Asp	Ser
	Pro	35					40					45			
Thr	Pro 50	Ile	Ala	Leu	Asn	Lys 55	Leu	Leu	Asn	Asp	Phe 60	Lys	Val	Ala	Gly
65	Arg	-			70	_				75					80
Thr	Ala	Trp	Arg	Tyr 85	Pro	Asn	Asn	Val	Gln 90	Phe	Thr	Glu	Ser	Tyr 95	Ser
Ile	Thr														

<210> 6728

<211> 82

<212> PRT

<213> Enterobacter cloacae

<400> 6728

Pro Val Leu Gln Ser Ser Met Ala Gly Val Pro Gly Phe Glu Pro Gly 1 5 10 15 Asn Ala Gly Ile Lys Asn Arg Cys Leu Thr Ala Trp Arg Tyr Pro Asn 20 25 Thr Ala Glu Asn Arg Met Ile Glu Glu Ile Trp Leu Gly Tyr Leu Asp 35 40 45

Ser Asn Gln Gly Met Pro Val Ser Lys Thr Gly Ala Leu Pro Leu Gly
50 55 60
Asp Thr Pro Ser Val Gln Arg Leu Pro Gly Asn Gly Ala Gly Glu
65 70 75 80

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<210> 6729
<211> 82
```

<212> PRT

Thr

<213> Enterobacter cloacae

<400> 6729

 Ser Lys
 Lys
 Tyr
 Gly
 Trp
 Gly
 Thr
 Trp
 Ile
 Arg
 Thr
 Arg
 Glu
 Cys
 Arg

 Tyr
 Gln
 Lys
 Pro
 Val
 Pro
 Tyr
 Arg
 Leu
 Ala
 Ile
 Pro
 His
 Pro
 Cys
 Asn

 20
 25
 30
 Asn

 Ala
 Tyr
 Leu
 Gly
 Met
 Val
 Arg
 Glu
 Ala
 Arg
 Leu
 Glu
 Leu
 His
 Pro
 Pro
 Asn
 <210> 6730 <211> 126 <212> PRT

<213> Enterobacter cloacae

<400> 6730

Leu

Val Met Cys Ser Asn Gln Leu Ser Tyr Val Ala Ser Thr Ala Ile Phe Asp Gly Trp Gly Thr Trp Ile Arg Thr Arg Glu Cys Arg Tyr Gln Lys 25 Pro Val Pro Tyr Arg Leu Ala Ile Pro Gln Tyr Arg Gly Glu Pro His 40 45 Asp Arg Arg Asn Met Ala Gly Val Pro Gly Phe Glu Pro Gly Asn Ala 55 . Gly Ile Lys Asn Arg Cys Leu Thr Ala Trp Arg Tyr Pro Ile Arg Ala 70 75 Thr Leu Thr Trp Glu Trp Cys Gly Arg Arg Asp Leu Asn Ser His Thr 85 90 Leu Arg Arg Gln Asn Leu Asn Leu Val Arg Leu Pro Ile Ser Pro Leu 105

Pro Gln Lys Arg Trp Trp Leu Arg Arg Asp Ser Asn Leu 115 120 125

<210> 6731 <211> 196 <212> PRT

<213> Enterobacter cloacae

<400> 6731

Val Ala Asn Arg Pro Ala Leu Lys Lys Leu Leu Gln Thr Leu Asn Glu Gly Asp Thr Leu Val Val Trp Lys Leu Asp Arg Leu Gly Arg Ser Met 70 75 Arg Asn Leu Val Leu Leu Val Asp Glu Leu Arg Gln Arg Gly Ile His 90 85 Phe Lys Ser Leu Thr Asp Ser Ile Asp Thr Ser Ser Pro Met Gly Arg 105 Phe Ile Phe His Ile Met Ser Ala Leu Ala Glu Met Glu Arg Glu Leu 125 120 Ile Val Glu Arg Thr Arg Ala Gly Leu Ala Ala Ala Arg Glu Lys Gly 135 140 Arg Ile Gly Gly Arg Arg Pro Lys Leu Thr Pro Glu Gln Trp Ala Gln 150 155 Ala Gly Arg Leu Ile Ala Asn Gly Val Asp Arg Lys Gln Val Ala Ile 170 Ile Tyr Asp Val Ala Val Cys Thr Leu Tyr Lys Lys Phe Pro Ala Ser 185 Lys Pro Ala

195

<210> 6732

<211> 167

<212> PRT

<213> Enterobacter cloacae

<400> 6732

Thr Val Ala Thr Thr Lys Val Tyr Cys Ala Leu Thr Glu Thr Lys Leu -10 Leu Tyr Ile Lys Thr Val Leu Glu Val Cys Val Met Glu Phe Ile Arg 25 Pro Thr Glu Leu Arg Glu Ile Ile Ala Ile Pro Leu Tyr Ser Asp Leu Val Gln Cys Gly Phe Pro Ser Pro Ala Ala Asp Tyr Val Glu Gln Arg 55 Ile Asp Leu Asn Glu Leu Leu Val Ser His Pro Ser Ser Thr Tyr Phe Val Lys Ala Ala Gly Asp Ser Met Ile Glu Ala Gly Ile Ser Asp Gly 90 85 Asp Leu Leu Val Val Asp Ser Ser Arg Thr Val Glu His Gly Asp Ile 100 105 110 Val Ile Ala Ala Val Asp Gly Glu Phe Thr Val Lys Arg Leu Gln Leu 125 120 Arg Pro Thr Val Gln Leu Asn Pro Met Asn Gly Ala Tyr Ser Pro Ile 135 140 Val Val Gly Ser Glu Asp Thr Leu Asp Val Phe Gly Val Val Thr Phe

155

150 Ile Val Lys Ser Ala Ser

<210> 6733

<211> 177

<212> PRT

<213> Enterobacter cloacae

<400> 6733

Gly Ser Phe Gln Pro Arg Gly Glu Asp Trp Ser Met Asp Phe Val Met Asp Ala Leu Ser Thr Gly Arg Arg Ile Lys Cys Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys Leu Thr Val Thr Val Ala Phe Gly Ile Ser

40 Gly Val Gln Val Thr Arg Ile Leu Asp Ser Ile Ala Leu Phe Arg Gly 55 Tyr Pro Ala Thr Ile Arg Thr Asp Gln Gly Pro Glu Phe Thr Cys Arg 70 Ala Leu Asp Gln Trp Ala Phe Glu His Gly Val Glu Leu Arg Leu Ile 90 8.5 Gln Pro Gly Lys Pro Thr Gln Asn Gly Phe Ile Glu Ser Phe Asn Gly 105 Arg Phe Arg Asp Glu Cys Leu Asn Glu His Trp Phe Ser Asp Ile Val 120 115 His Ala Arg Lys Ile Ile Asn Asp Trp Arg Gln Asp Tyr Asn Glu Cys 140 135 Arg Pro His Ser Thr Leu Asn Tyr Gln Thr Pro Ser Glu Phe Ala Ala 150 155 Gly Trp Arg Lys Gly His Ser Glu Asn Glu Asp Ser Asp Val Thr Asn 165 170

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<210> 6734
<211> 215
<212> PRT
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<400> 6734

<213> Enterobacter cloacae

Ser Ser Glu Ala Leu Met Asn Gln Thr Gln Phe Gln Lys Ala Ala Gly Ile Ser Ala Gly Leu Ser Ala Arg Trp Phe Pro His Ile Asp Ala Ala 25 Met Lys Glu Tyr Gly Ile Thr Thr Pro Leu Asp Gln Ala Met Phe Ile Ala Gln Met Gly His Glu Ser Thr Arg Phe Thr Arg Val Val Glu Asn Leu Asn Tyr Ala Ala Glu Asn Leu Val Pro Thr Phe Gly Ser His Arg 70 Ile Thr Pro Gln Gln Ala Ala Ala Leu Gly Arg Thr Ala Ala His Pro 90 85 Ala Asn Gln Lys Ala Ile Ala Asn Leu Val Tyr Gly Gly Glu Trp Gly 105 100 Lys Glu His Leu Gly Asn Gln Val Ala Gly Asp Gly Trp Lys Tyr Arg 125 120 Gly Arg Gly Leu Lys Gln Val Thr Gly Leu Ser Asn Tyr His Ser Cys 135 140 Gly Tyr Ala Leu Lys Leu Asp Leu Val Thr His Pro Glu Leu Leu Glu 155 150 Gln Asp Glu Tyr Ala Ala Arg Ser Ala Ala Trp Phe Tyr Ala Ser Arg 165 170 Gly Cys Leu Leu His Ser Gly Asp Val Glu Arg Val Thr Leu Leu Ile 185 Asn Gly Gly Arg Asn Gly Leu Asp Lys Arg Arg Glu Leu Phe Asn Leu 200 Ala Lys Ser Val Leu Val

210 <210> 6735

<211> 341

<212> PRT

<213> Enterobacter cloacae

<400> 6735

Gly Arg Phe Phe Ile Gly Val Tyr Met Ala Lys Pro Asp Trp Gly Glu 10 Leu Gln Gln Arg Phe Leu Ser Glu His Ala Ala Thr Gly Val Ser Pro 25 Lys Glu Trp Cys Glu Ala Gln Gly Leu Asn Tyr Ala Thr Ala Arg Arg 40 Tyr Ile Lys Lys Pro Ser Ala Gln Ser Val Gln Lys Ser Ala Gln Lys 55 Lys Val Arg Thr Ala Gln Lys Glu Gln Ser Ala Glu Glu Leu Val Asp 75 70 Asp Asp Gly Leu Thr Ala Gln Gln Arg Arg Phe Val Ala Glu Tyr Leu 90 8.5 Lys Asp Gly Asn Ala Thr Gln Ala Ala Ile Arg Ala Gly Tyr Ser Lys 105 110 Lys Ser Ala Glu Gln Ile Gly Tyr Gln Leu Leu Gln Lys Thr Ser Val 120 125 Ala Gln Ala Ile Ala Gln Gln Gln Lys Ala Ser Ile Ala Arg Thr Leu 135 140 Gly Ser Ala Asp Glu Val Leu Ala Gln Met Trp Gln Leu Ala Thr Phe 150 155 Asp Ala Asn Gln Leu Ser Gln Tyr Arg Arg Gly Ala Cys Arg Tyr Cys 165 170 175 Trp Gly Phe Gly His His Tyr Gln Trp Arg Asp Ala Val Glu Phe Glu 180 185 Glu Lys Arg Leu Glu Ala Val Glu Arg Asp Arg Glu Pro Glu Asp 200 205 Ser Gly Gly Tyr Gly Tyr Asp His Asn Arg Glu Pro Asn Pro Glu Cys 215 Pro Arg Cys Asn Gly Asp Gly Ile Gly Gln Pro Tyr Phe Pro Asp Thr 230 Arg Lys Leu Pro Ala Val Ser Arg Leu Ala Tyr Ser Gly Val Lys Val 250 Gly Lys Asn Gly Val Glu Ile Thr Ala Ile Ser Arg Glu Arg Met Phe 265 270 Glu Ala Val Met Lys Arg Leu Gly Leu Ala Asp Ser Glu Phe Ala Gln 280 Arg Leu Gln Gln Ile Glu Ile Asp Arg Leu Leu Glu Val Glu Lys 295 Leu Arg Lys Glu Leu Ala Gly Asp Gly Asp Asp Asp Glu Pro Thr Pro 315 Val Gln Ile Asn Ile Asn Val Val Asp Ala Arg Ala Glu Asp Gly Asp Gln Pro Asp Thr 340

<210> 6736 <211> 433

<212> PRT

<213> Enterobacter cloacae

## <400> 6736

 Leu Leu Ser Leu Leu Asn Arg Pro Ala Asp Met Phe Ala Leu Cys Asp 1
 5
 10
 15

 Val Asn Ser Phe Tyr Ala Ser Cys Glu Thr Val Phe Arg Pro Asp Leu 20
 25
 30

 Arg Gly Arg Pro Val Val Val Leu Ser Asn Asn Asp Gly Cys Val Ile 35
 40
 45

 Ala Arg Ser Ala Glu Ala Lys Ala Ala Gly Ile Ala Met Gly Glu Pro 50
 55
 60

 Phe Phe Lys Gln Lys Glu Leu Phe Arg Arg Ala Gly Val Val Cys Phe
 27



Ser Ser Asn Tyr Glu Leu Tyr Ala Asp Met Ser Asn Arg Val Met Thr 85 90 Thr Leu Glu Glu Met Ser Pro Arg Val Glu Ile Tyr Ser Ile Asp Glu 105 100 Ala Phe Cys Asp Leu Thr Gly Val Arg Ser Cys Arg Asp Leu Thr Asp 120 125 Phe Gly Lys Glu Ile Arg Ala Thr Val Leu Lys Arg Thr His Leu Thr 135 140 Val Gly Val Gly Ile Ala Gln Thr Lys Thr Leu Ala Lys Leu Ala Asn 150 155 His Ala Ala Lys Lys Trp Gln Arg Gln Thr Gly Gly Val Val Asp Leu 170 Ser Asn Ile Asp Arg Gln Arg Arg Leu Leu Ala Ile Val Pro Val Glu 185 Asp Val Trp Gly Val Gly Arg Arg Ile Ile Lys Lys Leu Asn Ala Met 200 205 Gly Ile Lys Thr Ala Leu Asp Leu Ser Glu Gln Ser Thr Trp Ile Ile 215 220 Arg Lys His Phe Asn Val Val Leu Glu Gly Thr Val Arg Glu Leu Arg 230 235 Gly Glu Pro Cys Leu Glu Leu Glu Glu Phe Ala Pro Ser Lys Gln Glu 250 245 Ile Val Cys Ser Arg Ser Phe Gly Glu Arg Val Thr Glu Tyr Glu Gln 270 260 265 Met Arg Gln Ala Ile Cys Ser Tyr Ala Ala Arg Gly Ala Glu Lys Leu 280 275 Arg Gly Glu His Gln Tyr Cys Arg Phe Ile Ser Ala Phe Val Lys Thr 290 295 300 Ser Pro Phe Ala Leu Asn Glu Pro Tyr Tyr Gly Asn Ser Ala Ser Met 315 310 Lys Leu Leu Thr Pro Thr Gln Asp Thr Arg Asp Ile Phe Asn Ala Ala 325 330 Val Lys Cys Leu Asp Lys Ile Trp Lys Asp Gly His Arg Tyr Gln Lys 340 345 350 Ala Gly Ile Met Leu Gly Asp Phe Phe Ser Gln Gly Val Ala Gln Leu 360 Asn Leu Phe Asp Glu Asn Ala Pro Arg Ala Gly Ser Glu Arg Leu Met 375 380 Glu Val Leu Asp His Leu Asn Ala Lys Asp Gly Lys Gly Thr Leu Tyr 390 395 Phe Ala Gly Gln Gly Ile Gln Gln Trp Gln Met Lys Arg Ser Met 410 Leu Ser Pro Arg Tyr Thr Thr Arg Phe Ser Asp Leu Leu His Val Arg

<210> 6737

<211> 120

<212> PRT

<213> Enterobacter cloacae

<400> 6737

Leu Ile Glu Ser Ile Asn Leu 115

010. 6720

<210> 6738

<211> 212 <212> PRT

<213> Enterobacter cloacae

<400> 6738

Asn Val Gly Leu Gly Ser Ser Ala Thr Lys Asp Val Gly Thr Asp Ser 1 10 15

Gly Asn Val Met Gln Val Gly Ala Phe Gly Val Gly Thr Tyr Gln Ala 20 25 30

Pro Arg Pro Asn Asp Ala Asn Ser Ser Phe Ile Ser Asp Ala Asp Gly 35 40 45

Asn Thr Ser Trp Ala Pro Ala Asn Gly Cys Gly Tyr Gln Ser Ser Tyr 50 55 60

Asn Thr Gln Arg Ile Ala Gln Met Trp Val Thr Thr Gly Gly Ala Gly 65 70 75 80

Tyr Cys Arg Phe Leu Leu Asn Thr Asn Pro Gln Thr Ala Lys Thr Asp

85 90 95
Ala Pro Trp Thr Val Phe Gln Ser Ala Gly Thr Ser Asp Ile Asn Phe

100 105 110 Lys Lys Val Thr Gly Asp Leu Asp Leu Asn Glu Ser Leu Ser Asn Ile 115 120 125

Ala Ala Met Asp Phe Lys Thr Phe Tyr Tyr Leu Ala Asp Glu Asp Lys 130 135 140

Val Ile Arg Arg Gly Val Ile Ala Gln Glu Leu Glu Lys Ile Asp Pro 145 150 155 160

Gln Tyr Val His Ser Ala Glu Glu Ser Gly Lys Met Thr Leu Asp Leu 165 170 175

Asn Pro Leu Val Leu Asp Ala Leu Ala Ala Ile Lys Ala Leu Thr Ile
180 185 190

Arg Val Arg Glu Leu Glu Asn Glu Ala Gln Ala Val Val Pro Val Ser 195 200 205

Ser Ala Asp 210

<210> 6739

<211> 106

<212> PRT

<213> Enterobacter cloacae

<400> 6739

 Leu Glu Val Ser Met Cys Gly Arg Phe Ala Gln Ala Gln Thr Arg Glu

 1
 5
 10
 15

 Glu Tyr Leu Val Tyr Leu Ala Asp Glu Ala Asp Arg Asp Ile Ala Tyr
 20
 25
 30

 Asp Pro Glu Pro Ile Gly Arg Tyr Asn Val Ala Pro Gly Thr Lys Val
 45

 Leu Leu Leu Leu Ser Glu Arg Asp Glu Gln Leu His Leu Asp Pro Val Leu
 50

 Trp Ser Tyr Ala Pro Gly Trp Trp Asp Lys Pro Pro Leu Ile Asn Ala

Arg Ile Glu Thr Thr Ala Thr Ser Arg Met Phe Lys Pro Leu Trp Gln

95

85 90

His Gly Arg Ala Ile Cys Phe Ala Asp 100 105

<210> 6740

<211> 382

<212> PRT

<213> Enterobacter cloacae

<400> 6740

Ser Lys Arg Ile Asp Val Lys Val Leu Thr Val Phe Gly Thr Arg Pro 10 Glu Ala Ile Lys Met Ala Pro Leu Val His Ala Leu Ala Arg Asp Pro 20 25 Asp Ile Glu Ala Lys Val Cys Val Thr Ala Gln His Arg Glu Met Leu 40 Asp Gln Val Leu Thr Leu Phe Ser Ile Val Pro Asp Tyr Asp Leu Asn 5.5 Ile Met Lys Pro Gly Gln Gly Leu Thr Glu Ile Thr Cys Arg Ile Leu 70 7.5 Gln Glu Leu Lys Pro Ile Leu Glu Ser Phe Lys Pro Asp Val Val Leu 85 90 Val His Gly Asp Thr Thr Thr Val Ala Thr Ser Leu Ala Ala Phe 100 105 Tyr Gln Arg Ile Pro Val Gly His Ile Glu Ala Gly Leu Arg Thr Gly 120 Asn Leu Tyr Ser Pro Trp Pro Glu Glu Ala Asn Arg Thr Leu Thr Gly 135 140 His Leu Ala Met Tyr His Phe Ala Pro Thr Glu Asn Ser Arg Gln Asn 150 155 Leu Leu Arg Glu Asn Ile Ser Asp Ser Lys Ile Phe Val Thr Gly Asn 170 Thr Val Ile Asp Ala Leu Ile Trp Val Arg Asp Arg Val Leu Ala Asn 180 185 Ser Glu Leu Gln Ala Glu Leu Ala Ala Arg Tyr Pro Phe Leu Asn Asn 200 Gly Lys Lys Thr Ile Leu Val Thr Gly His Arg Arg Glu Ser Phe Gly 215 220 Arg Gly Phe Glu Gln Ile Cys His Ala Leu Ala Glu Ile Ala Ala Gln 230 235 Asn Glu Asp Val Gln Ile Val Tyr Pro Val His Leu Asn Pro Asn Val 245 250 Ser Glu Pro Val Asn Arg Ile Leu Gly His Val Glu Asn Val Leu Leu 265 Ile Glu Pro Gln Asp Tyr Leu Pro Phe Val Trp Leu Met Asn His Ala 280 Trp Leu Ile Leu Thr Asp Ser Gly Gly Ile Gln Glu Glu Ala Pro Ser 295 300 Leu Gly Lys Pro Val Leu Val Met Arg Glu Thr Thr Glu Arg Pro Glu 310 315 Ala Val Thr Ala Gly Thr Val Arg Leu Val Gly Thr Asp Pro Arg Arg 325 330 Ile Val Glu Glu Val Thr Arg Leu Leu His Asp Asp Glu Glu Tyr Gln

340 345 350
Ala Met Ser Arg Ala His Asn Pro Tyr Gly Asp Gly Gln Ala Cys Gly
355 360 365

Arg Ile Leu His Ala Leu Lys His Asn Arg Val Thr Leu 370 375 380

<210> 6741

<211> 422



<213> Enterobacter cloacae

<400> 6741 Val Ile Ser Pro Asp Met Ser Leu Ala Lys Ala Ser Val Trp Thr Ala 10 Ala Ser Thr Leu Val Lys Ile Gly Ala Gly Leu Leu Val Val Lys Leu 25 Leu Ala Val Ser Phe Gly Pro Ser Gly Val Gly Leu Ala Gly Asn Phe Arg Gln Leu Val Thr Val Leu Gly Val Leu Ala Gly Ala Gly Ile Phe 55 Asn Gly Val Thr Lys Tyr Val Ala Gln His His Asp Asp Ala Glu Lys 75 Leu Arg Thr Val Val Gly Thr Ser Ser Ala Met Val Leu Gly Phe Ser 85 90 Thr Leu Leu Ala Val Val Phe Leu Leu Ala Ala Pro Ile Ser Gln 100 105 Gly Leu Phe Gly His Thr His Tyr Gln Gly Leu Val Arg Leu Val Ala 120 Leu Val Gln Met Gly Ile Ala Trp Ala Asn Leu Leu Ala Leu Met 135 140 Lys Gly Phe Arg Asp Ala Ala Gly Asn Ala Leu Ala Leu Ile Leu Gly 150 155 Ser Ile Ile Gly Val Ile Ala Tyr Tyr Phe Cys Tyr Arg Leu Gly Gly 170 175 165 Tyr Glu Gly Ala Leu Leu Gly Leu Ala Leu Val Pro Ala Leu Val Val 180 185 Ile Pro Ala Ala Phe Met Leu Met Arg Arg Gly Asn Val Pro Leu Ser 200 Tyr Leu Lys Pro Gln Trp Asp Lys Ile Leu Ala Gly Gln Leu Gly Lys 215 220 Phe Thr Leu Met Ala Leu Ile Thr Ser Val Thr Leu Pro Val Ala Tyr 230 235 Val Met Met Arg Asn Leu Leu Ala Ala His Tyr Ser Trp Asp Glu Val 245 250 Gly Ile Trp Gln Gly Val Ser Ser Ile Ser Asp Ala Tyr Leu Gln Phe 260 265 Ile Thr Ala Ser Phe Ser Val Tyr Leu Leu Pro Thr Leu Ser Arg Leu 280 Thr Ser Arg Gln Asp Ile Thr Arg Glu Ile Phe Arg Ser Leu Arg Phe 295 300 Val Leu Pro Ala Val Ala Ile Ala Ser Phe Thr Val Trp Leu Leu Arg 310 315 Asp Phe Ala Ile Trp Leu Leu Phe Ser Ala Lys Phe Thr Ala Met Arg 325 330 Asp Leu Phe Ala Trp Gln Leu Val Gly Asp Val Leu Lys Val Gly Ala 345 Tyr Val Phe Gly Tyr Leu Val Ile Ala Lys Ala Ser Leu Arg Leu Tyr 360 Ile Leu Ala Glu Ile Gly Gln Phe Ala Leu Leu Thr Ala Phe Ser His 380 375 Trp Leu Ile Pro Thr His Gly Ala Leu Gly Ala Ala Gln Ala Tyr Met 390 395 Ala Thr Tyr Ile Val Tyr Phe Ala Ala Cys Cys Gly Val Phe Leu Leu 405 410 Trp Arg Lys Arg Ala 420



<213> Enterobacter cloacae

```
<400> 6742
Phe Arg Val Leu Trp Gln Gly Arg Leu Trp Ile Val Gly Ile Ala Leu
Gly Phe Ala Leu Leu Ala Leu Ala Tyr Thr Phe Phe Ala Lys Gln Glu
                                25
Trp Ser Ala Thr Ala Ile Thr Asp Arg Pro Thr Val Asn Met Leu Gly
                            40
Gly Tyr Tyr Ser Gln Gln Gln Phe Leu Arg Asn Leu Asp Ile Lys Ala
                        55
Asn Leu Ala Thr Pro Asp Gln Ala Ser Val Met Asp Glu Ser Tyr Lys
                    70
Glu Phe Val Met Gln Leu Ala Ser Trp Asp Thr Arg Arg Asp Phe Trp
                85
                                    90
Ser Gln Thr Asp Tyr Tyr Lys Gln Arg Met Val Gly Asn Ser Lys Ala
            100
                                105
Asp Ala Ala Leu Leu Asp Asp Leu Ile Asn Asn Ile Gln Phe Met Pro
                            120
Gly Asp Val Leu Arg Asn Val Ser Asp Ser Val Lys Leu Ile Ala Glu
                        135
Thr Ala Pro Asp Ala Asn Asn Leu Leu Arg Gln Tyr Val Ala Phe Ala
                    150
Ser Gln Arg Ala Ala Ser His Leu Asn Asp Glu Leu Lys Gly Ala Trp
                                    170
Ala Ala Arg Thr Ile Gln Met Lys Ala Gln Val Lys Arg Gln Glu Glu
                                185
                                                    190
Val Ala Lys Ala Ile Phe Ala Arg Arg Val His Asn Leu Glu Gln Ala
        195
                            200
Leu Lys Ile Ala Glu Gln His Asn Ile Ser Arg Ser Glu Thr Asp Val
                        215
                                            220
Pro Ala Asp Glu Leu Pro Asp Ser Glu Met Phe Leu Leu Gly Arg Pro
                    230
                                        235
Met Leu Gln Ala Arg Leu Glu Asn Ile Gln Ala Val Gly Pro Asp Phe
                245
                                    250
Asp Leu Asp Tyr Asp Gln Asn Arg Ala Met Leu Asn Thr Leu Asn Val
                                265
            260
Gly Pro Thr Leu Asp Pro Arg Phe Gln Thr Tyr Arg Tyr Leu Arg Thr
                            280
                                                285
Pro Glu Glu Pro Val Lys Arg Asp Ser Pro Arg Arg Ala Phe Leu Met
                                            300
                       295
Ile Met Trp Gly Ile Val Gly Ala Leu Thr Gly Ala Gly Val Ala Leu
                                        315
                    310
Leu Arg Arg Arg Thr Asn
```

```
<210> 6743
```

325

## <400> 6743

<sup>&</sup>lt;211> 232

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Ala Leu Gln Gln His Gly Phe Arg Leu Val Glu Gly Glu Val Asp Leu 70 7.5 Ser Val Thr Val Ala Arg Tyr Ala Ser Pro Gly Ala Glu Ile Ala Thr 85 90 Glu Gln Asp Ile Pro Thr Leu Arg Lys Met Ala Ala Leu Ala Phe Ala 105 Gln Ser Arg Phe Arg Ala Pro Trp Tyr Ala Pro Asp Asp Ser Gly Arg 120 Phe Tyr Ala Gln Trp Ile Glu Asn Ala Val Lys Gly Thr Phe Asp His 135 140 Val Cys Leu Val Phe Arg Thr Asp Gly Gly Gln Ile Gln Gly Phe Val 150 155 Ser Leu Arg Arg Leu Thr Glu His Glu Ala Arg Ile Gly Leu Leu Ala 165 170 Gly Arg Gly Met Gly Glu Lys Leu Met Gln Ala Ala Leu His Trp Ala 180 185 Glu Gln Gln Val Ser Thr Leu Arg Val Ala Thr Gln Met Gly Asn 195 200 205 Thr Ala Ala Leu Lys Arg Tyr Ile Ala Ser Gly Ala Ser Ile Asp Ala 210 215 Thr Ala Tyr Trp Leu Tyr Arg 230

<210> 6744

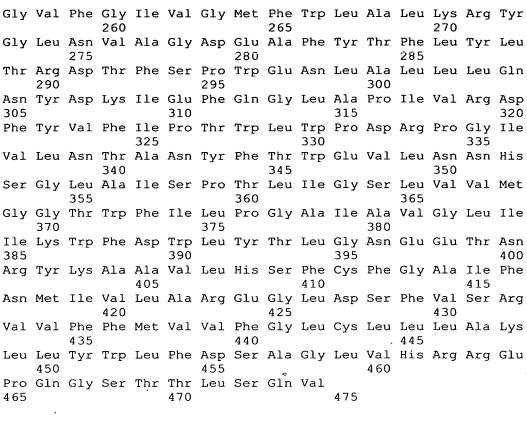
<211> 475

<212> PRT

<213> Enterobacter cloacae

<400> 6744

His Arg Leu Phe Gln Pro Glu Leu Pro His Ala Val Ala Pro Arg Ala 5 10 Ala Tyr Cys Phe Arg Arg Gln Arg Met Ser Gln Leu Gln Phe Ser Gly 20 25 Leu Leu Val Val Trp Leu Leu Ser Thr Leu Phe Ile Ala Thr Leu Thr 40 Trp Phe Glu Phe Arg Arg Val Ser Phe Asn Phe Asn Val Phe Phe Ser 55 Leu Leu Phe Leu Leu Thr Phe Phe Phe Gly Phe Pro Leu Thr Ser Ile Leu Val Phe Arg Phe Asp Val Gly Val Ala Pro Pro Glu Ile Leu Leu Gln Ala Leu Leu Ser Ala Thr Cys Phe Tyr Ala Val Tyr Tyr Val Thr 105 Tyr Lys Thr Arg Leu Arg Ala Ala Lys Asp Thr Ala Pro Arg Arg Pro 120 Leu Phe Thr Met Asn Arg Val Glu Thr His Leu Thr Trp Val Met Leu 135 140 Met Thr Ile Ala Leu Val Ser Val Ala Ile Phe Phe Met His Asn Gly 150 155 Phe Leu Leu Phe Lys Leu Gln Ser Tyr Ser Gln Ile Phe Ser Ala Glu 170 165 Val Ser Gly Val Ala Leu Lys Arg Phe Phe Tyr Phe Phe Ile Pro Ala 185 180 Met Leu Val Val Phe Phe Leu Arg Gln Asp Ser Lys Ala Trp Leu Phe 200 Phe Leu Val Ser Thr Val Ala Phe Gly Ile Leu Thr Tyr Met Ile Val 215 220 Gly Gly Thr Arg Ala Asn Ile Ile Ile Ala Phe Ala Ile Phe Leu Phe 230 235 Ile Gly Ile Ile Arg Gly Trp Ile Ser Leu Trp Met Leu Ala Ala Ala 250



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<210> 6745
<211> 251
<212> PRT
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<213> Enterobacter cloacae

<400> 6745

Val Gly Ile Ile Met Thr Asp Thr Thr Ser Ala Pro Arg Tyr Ala Leu 10 Arg Gly Leu Gln Leu Ile Gly Trp Arg Asp Met Gln His Ala Leu Asp 25 Phe Leu Phe Ala Asp Gly Gln Met Lys Ser Gly Thr Leu Val Ala Ile Asn Ala Glu Lys Met Leu Ala Val Glu Asp Asn Ala Glu Val Lys Ser 55 Leu Ile Glu Ala Ala Glu Phe Lys Tyr Ala Asp Gly Ile Ser Val Val 75 70 Arg Ser Ile Arg Lys Lys Phe Pro Asp Ala Asn Val Ser Arg Val Ala 90 8.5 Gly Ala Asp Leu Trp Glu Arg Leu Met Glu Arg Ala Gly Ala Glu Gly 100 105 Thr Pro Val Phe Leu Ile Gly Gly Lys Pro Glu Val Leu Ala Gln Thr 120 Glu Gln Lys Leu Arg Asn Gln Trp Asn Val Asn Ile Val Gly Ser Gln 135 Asp Gly Tyr Phe Arg Pro Glu Asp Arg Gln Thr Leu Tyr Glu Arg Val 155 Arg Asp Ser Gly Ala Lys Ile Val Thr Val Ala Met Gly Ser Pro Arg 170 Gln Glu Ile Leu Met Arg Asp Cys Arg Leu Val Ser Pro Asp Ala Leu 185 Tyr Met Gly Val Gly Gly Thr Tyr Asp Val Phe Thr Gly His Val Lys 200

Arg Ala Pro Lys Val Trp Gln Asn Leu Gly Leu Glu Trp Leu Tyr Arg
210 215 220

Leu Leu Ser Gln Pro Thr Arg Ile Lys Arg Gln Ile Arg Leu Leu Arg 225 230 235 240

Tyr Leu Ala Trp His Tyr Thr Gly Lys Met 245 250

<210> 6746

<211> 328

<212> PRT

<213> Enterobacter cloacae

<400> 6746

Glu Thr Ile Arg Ser Val Phe Gln Tyr Pro Ser Lys Thr Ile Pro Gly
1 10 15

Asn Lys Ser Gly Asn Ser Lys His Asn Arg Gly Ile Met Ala Glu Lys 20 25 30

Lys Pro Glu Leu Gln Arg Gly Leu Glu Ala Arg His Ile Glu Leu Ile 35 40 45

Ala Leu Gly Gly Thr Ile Gly Val Gly Leu Phe Met Gly Ser Ala Ser 50 55 60

Thr Leu Lys Trp Ala Gly Pro Ser Val Leu Leu Ala Tyr Ile Ile Ala 65 70 75 80

Gly Leu Phe Val Phe Phe Ile Met Arg Ser Met Gly Glu Met Leu Phe 85 90 95

Leu Glu Pro Val Thr Gly Ser Phe Ala Val Asn Ala His Arg Tyr Met 100 105 110

Ser Pro Phe Phe Gly Tyr Leu Thr Ala Trp Ser Tyr Trp Phe Met Trp 115 120 125

Phe Trp Phe Pro Glu Met Ala Gln Trp Ile Pro Ala Leu Ile Ala Val 145 150 155 160

Gly Leu Val Ala Leu Ala Asn Ile Ala Ala Val Arg Leu Tyr Gly Glu 165 170 175

Ile Glu Phe Trp Phe Ala Met Ile Lys Val Thr Thr Ile Ile Val Met 180 185 190

Ile Val Val Gly Leu Gly Val Ile Phe Phe Gly Phe Gly Asn Gly Gly 195 200 205

His Ala Val Gly Phe Gly Asn Leu Thr Gly His Gly Gly Phe Phe Ala 210 215 220

Gly Gly Trp Lys Gly Phe Leu Thr Ala Leu Cys Ile Val Val Ala Ser 225 230 235 240

Tyr Gln Gly Val Glu Leu Ile Gly Ile Thr Ala Gly Glu Ala Lys Asn 245 250 255

Pro Gln Val Thr Leu Arg Ser Ala Val Gly Lys Val Leu Trp Arg Ile 260 265 270

Leu Ile Phe Tyr Val Gly Ala Ile Phe Val Ile Val Thr Ile Phe Pro 275 280 285

Trp Asn Glu Ile Gly Thr Thr Gly Ser Pro Phe Val Leu Thr Phe Ala 290 295 300

Lys Ile Gly Ile Thr Ala Ala Ala Ala Ile Ile Asn Phe Val Val Leu 305 310 315 320

Thr Ala Ala Leu Ser Arg Leu

<sup>&</sup>lt;210> 6747

<sup>&</sup>lt;211> 427

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6747 Thr Gln Ser Gly Asn Ala Met Ser Phe Thr Thr Ile Ser Val Val Gly 10 Leu Gly Tyr Ile Gly Leu Pro Thr Ala Ala Ala Phe Ala Ser Arg Gln 25 Lys Gln Val Val Gly Val Asp Ile Asn Ala His Ala Val Glu Thr Ile 40 Asn Arg Gly Glu Ile His Ile Val Glu Pro Asp Leu Asp Arg Val Val Lys Lys Ala Val Asp Gly Gly Phe Leu Arg Ala Ser Thr Thr Pro Val Glu Ala Asp Ala Tyr Leu Ile Ala Val Pro Thr Pro Phe Lys Gly Asp 85 His Glu Pro Asp Met Val Tyr Val Glu Ala Ala Lys Ser Ile Ala 105 Pro Val Leu Lys Lys Gly Ala Leu Val Ile Leu Glu Ser Thr Ser Pro 120 Val Gly Ala Thr Glu Gln Met Ala Gln Trp Leu Ala Glu Ala Arg Pro 135 140 Asp Leu Ser Phe Pro Gln Gln Val Gly Asp Gln Ala Asp Ile Asn Ile 150 155 Ala Tyr Cys Pro Glu Arg Val Leu Pro Gly Gln Val Met Val Glu Leu 165 170 Ile Lys Asn Asp Arg Val Ile Gly Gly Met Thr Pro Val Cys Ser Ala 185 180 190 Arg Ala Ser Glu Leu Tyr Lys Ile Phe Leu Glu Gly Glu Cys Val Val 200 Thr Asn Ser Arg Thr Ala Glu Met Cys Lys Leu Thr Glu Asn Ser Phe 215 220 Arg Asp Val Asn Ile Ala Phe Ala Asn Glu Leu Ser Leu Ile Cys Ala 230 235 Asp Gln Gly Ile Asn Val Trp Glu Leu Ile Arg Leu Ala Asn Arg His 250 Pro Arg Val Asn Ile Leu Gln Pro Gly Pro Gly Val Gly His Cys 265 270 Ile Ala Val Asp Pro Trp Phe Ile Val Ala Gln Asn Pro Glu Gln Ala 280 Arg Leu Ile Arg Thr Ala Arg Glu Val Asn'Asp His Lys Pro His Trp 295 Val Ile Asn Gln Val Lys Ala Thr Val Ala Asp Cys Leu Ala Asp Ser 315 310 Gly Lys Arg Ala Ser Glu Leu Lys Ile Ala Cys Phe Gly Leu Ala Phe 330 Lys Pro Asn Ile Asp Asp Leu Arg Glu Ser Pro Ala Met Glu Ile Ala 345 Glu Met Ile Ala Ala Trp His Ser Gly Glu Thr Leu Val Val Glu Pro 360 Asn Ile His Ala Leu Pro Ala Lys Leu Ala Gly His Cys Thr Leu Thr 380 375 Ala Leu Asp Asp Ala Leu Ala Thr Ala Asp Val Leu Val Leu Leu Val 395 390 Asp His Asn Ala Phe Lys Ala Val Ser Gly Asp Ala Val Arg Gln Gln 410 405 Tyr Val Val Asp Thr Lys Gly Val Trp Arg

<sup>&</sup>lt;210> 6748

<sup>&</sup>lt;211> 435

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6748 Pro Gly Ala Ala Trp Ala Arg Asn Ser Cys Arg Arg Cys Thr Gly 10 Arg Ser Asn Asn Arg Tyr Arg Arg Cys Gly Ser Gln Pro Arg Trp Ala 25 Thr Pro Leu Arg Leu Asn Val Ile Leu Arg Val Val Pro Ala Ser Thr Pro Pro Pro Thr Gly Tyr Thr Gly Asp Lys Met Ile Pro Phe Asn Ala Pro Pro Val Val Gly Thr Glu Leu Asp Tyr Met Gln Ser Ala Met Gly 75 Ser Gly Lys Leu Cys Gly Asp Gly Gly Phe Thr Arg Arg Cys Gln Gln 8.5 90 Trp Met Glu Gln Arg Phe His Ser Ala Lys Val Leu Leu Thr Pro Ser 105 100 Cys Thr Ala Ser Leu Glu Met Ala Ala Leu Leu Leu Asp Ile Gln Pro 120 125 Gly Asp Glu Val Ile Met Pro Ser Tyr Thr Phe Val Ser Thr Ala Asn 135 140 Ala Phe Val Leu Arg Gly Ala Lys Ile Val Phe Val Asp Ile Arg Pro 150 155 Asp Thr Met Asn Ile Asp Glu Thr Leu Ile Glu Ala Ala Ile Thr Asp 170 Lys Thr Arg Ala Ile Val Pro Val His Tyr Ala Gly Val Ala Cys Glu 185 Met Asp Thr Ile Met Ala Ile Ala Lys Lys His Asn Leu Phe Val Val 200 Glu Asp Ala Ala Gln Gly Val Met Ser Thr Tyr Lys Gly Arg Ala Leu 215 220 Gly Thr Ile Gly His Ile Gly Cys Phe Ser Phe His Glu Thr Lys Asn 235 Tyr Thr Ala Gly Gly Glu Gly Gly Ala Thr Leu Ile Asn Asp Arg Ala 245 250 Leu Val Glu Arg Ala Glu Val Ile Arg Glu Lys Gly Thr Asn Arg Ser 265 Gln Phe Phe Arg Gly Gln Val Asp Lys Tyr Thr Trp Arg Asp Ile Gly 280 285 Ser Ser Tyr Leu Met Ala Asp Leu Gln Ala Ala Tyr Leu Trp Ala Gln 295 Leu Glu Ala Ala Glu Arg Ile Asn Leu Gln Arg Leu Ser Leu Trp Gln 310 315 Thr Tyr Tyr Asp Ala Leu Glu Pro Leu Ala Lys Ala Gly Arg Ile Glu 325 330 Leu Pro Thr Ile Pro Ala Asp Cys Ile His Asn Ala His Met Phe Tyr 345 Ile Lys Leu Arg Asp Asn Asp Asp Arg Ser Lys Leu Ile Ala Trp Leu 360 365 Lys Glu Ala Glu Ile Met Ala Val Phe His Tyr Ile Pro Leu His Ser 375 380 Ser Pro Ala Gly Glu Ala Phe Gly Met Phe Ala Gly Glu Asp Arg Tyr 390 395 Thr Thr Lys Glu Ser Glu Arg Leu Leu Arg Leu Pro Leu Phe Tyr Asn 410 Leu Ala Pro Val Asn Gln Arg Thr Val Ile Asn Ser Leu Leu Ser Tyr Phe Ala

435

<210> 6749

<211> 362 <212> PRT



### <213> Enterobacter cloacae

<400> 6749 Thr Arg Met Thr Ala Leu Ile His Ile Leu Gly Ser Asp Ile Pro His 10 His Asn Gln Thr Val Leu Arg Phe Phe Asn Asp Glu Leu Ala Ser Gly 25 Thr Pro Asp Ala Arg Glu Phe Met Val Val Gly Arg Asp Asn Gly Leu 40 Ser Val Ala Cys Pro Ala Leu His Ile Thr Phe Trp Pro Asp Lys Ala 55 Ala Leu Thr Lys Ala Val Val Ala Lys Ala Lys Ala Asp Arg Ser Gln 70 75 Arg Phe Phe Phe His Gly Gln Phe Asn Thr Gly Leu Trp Leu Ala Leu 90 Leu Ser Gly Gly Ile Lys Pro Ser Gln Phe Ser Trp His Ile Trp Gly 100 105 Ala Asp Leu Tyr Glu Val Ser Arg Gly Trp Lys Phe Arg Leu Phe Tyr 120 125 Pro Leu Arg Arg Leu Ala Gln Ala Arg Val Gly Cys Val Phe Ala Thr 135 140 Arg Gly Asp Leu Asn Tyr Phe Ala Lys Gln His Pro Lys Val Arg Gly 150 155 Glu Leu Leu Tyr Phe Pro Thr Arg Met Asp Pro Ala Leu Asn Thr Leu 170 Ala Asn Asp Ala Val Arg Glu Gly Lys Leu Thr Ile Leu Val Gly Asn 185 Ser Gly Asp Arg Ser Asn Glu His Val Ala Ala Leu Arg Ala Val His 195 200 205 Gln Gln Phe Gly Asp Thr Val Asn Val Val Pro Met Gly Tyr Pro 215 Ala Asn Asn Asp Ala Tyr Ile Asn Asp Val Arg Gln Gln Gly Leu Ala 230 235 Leu Phe Ser Ala Glu Asn Leu His Ile Leu Asn Asp Lys Leu Glu Phe 245 250 Asp Asp Tyr Leu Ala Leu Leu Arg Lys Cys Asp Leu Gly Tyr Phe Ile 265 270 Phe Ala Arg Gln Gln Gly Ile Gly Thr Leu Cys Leu Leu Ile Gln Ala 280 Gly Val Pro Cys Val Leu Asn Arg Glu Asn Pro Phe Trp Gln Asp Met 295 300 Ala Glu Gln His Ile Pro Val Leu Phe Thr Ser Asp Thr Leu Asn Val 310 315 Glu Val Val Arg Glu Ala Gln Arg Gln Leu Thr Leu Val Asp Lys Asn 330 325 Ser Ile Asp Phe Phe Ser Pro Asn Tyr Leu Thr Pro Trp His His Ala 340 345 Leu Arg Ile Ala Ser Gly Asp Asn Ala

<210> 6750

<211> 291

<212> PRT

<213> Enterobacter cloacae

<400> 6750

Gln Pro Ile Pro Ala Val Val Cys Arg Leu Thr Lys Ala Lys Ser Glu
1 5 10 15

Leu Ser Arg Leu Ser Asn Gln Pro Ala Ala Ala Arg Arg Val Asn Pro
20 25 30

Leu Asn Gly Val Leu Met Gln Ile Ser Thr Glu Val Leu Asn Val Leu

40 Ser Arg Cys Arg Ala Glu Gly Asn Phe Leu Phe Leu Ala Asp Gln Leu 55 60 Asp Arg Ser Ile Tyr Val Lys Thr Asn Lys Val Leu Glu Ala Ala Gly 70 75 Gly Lys Trp Asn Arq Lys Glu Gln Ala His Ile Phe Thr Ala Asp Ala 90 85 Ala Glu Arg Ile Glu Gln Ile Ile Leu Thr Gly Ser Val Asp Ile Pro 105 Arg Asp Leu Phe Asn Phe Phe Pro Thr Pro Glu Asn Leu Val Thr Asp 120 Met Val Leu Arg Ala Glu Pro Ala Ala Gly Glu Arg Val Leu Glu Pro 135 Glu Phe Gly Asp Gly Arg Ile Leu Lys Ala Leu Lys Leu Ala Ala Pro 150 155 Asp Ala Leu Ile Thr Gly Ile Glu Leu Asn Asp Glu Arg Phe Leu Ala 170 165 Val Lys Asn Asp Ser Val Leu Ser Thr Gly Val Glu Leu Val His Thr 180 185 Asp Phe Leu Gly Tyr Gln Pro Asp Glu Thr Phe Asp Val Ile Val Met 200 Asn Pro Pro Phe Leu Lys Arg Ser Asp Val Lys His Val Met His Ala 215 220 Ile Ala Met Leu Ala Lys Arg Gly Arg Leu Gln Ala Ile Leu Ser Ala 230 235 Gly Val Leu Phe Arg Glu Asp Thr Leu Thr Lys Ala Leu Arg Glu Arg 245 250 Val Lys Gln Leu Gly Gly Gln Ile Ser Pro Leu Pro Asp Asp Thr Phe 265 Arg Glu Ser Gly Thr Lys Val Lys Thr Ala Arg Leu Glu Ile Asp Leu 280 Arg Arg 290

<210> 6751

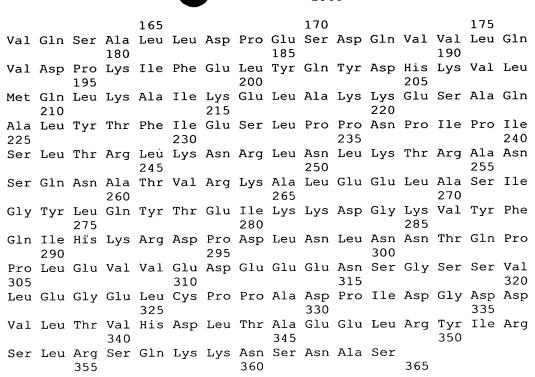
<211> 365

<212> PRT

<213> Enterobacter cloacae

<400> 6751

Leu Ile Met Thr Lys Glu Lys Asp Thr Glu Gln Gln Asp Leu Val Thr Arq Ala Phe Ser Val Arg Glu Lys Glu Ser Gly Lys Asp Ile Ile Leu Arg Pro Asn Ser Asn Arg Thr Val Gln Ser Ile Ala Leu Met Arg Leu Gly Leu Phe Val Pro Ser Pro Lys Ser Val Gly Arg Gln Asn Arg Glu 55 Tyr Lys Thr Val Gly Phe Asp Ala Thr Lys Glu Leu Gln Thr Leu Ser 70 75 Leu Met Glu Ser Glu Gly Phe Thr Asn Ile Ser Ile Val Gly Glu Arg 90 85 Leu Asp Met Ser Val Asp Phe Lys Thr Trp Met Gly Ile Ile Arg Thr 100 105 110 Tyr Ala Asn His Pro Ile Asn Asn Asp Thr Ile Ser Leu Lys Phe Thr 120 125 Glu Phe Leu Lys Leu Cys Thr Pro Glu Asn Tyr Arg Ser Ser Thr Ala 135 140 Ser Arg Lys Arg Ile Asp Ala Ser Leu Arg Arg Leu Ala Ser Val Thr 150 155 Leu Ser Phe Thr Ser Asn Asn Ser Ser Lys Val Tyr Thr His Leu



<210> 6752

<211> 273

<212> PRT

<400> 6752

<213> Enterobacter cloacae

Ala Gly Glu Trp Thr Asp Asp Thr Ser Met Ala Leu Cys Leu Ala Glu 25 Thr Leu Leu Glu Lys Gly Asp Ala Asp Thr Ile Cys Phe Arg Asn Lys Leu Leu Glu Trp Tyr Gln His Gly Tyr Asn Ser Ser Ile Gly Val Cys Phe Asp Ile Gly Asn Thr Thr Arg Phe Ala Leu Glu Gln Tyr Leu Thr 75 Ile Gly Pro Gly Trp Ser Gly Asn Thr Ala Pro Glu Thr Ala Gly Asn 90 8.5 Ala Ser Ile Ile Arg Gln Ala Pro Val Ser Ile Phe Phe Arg Lys Ser 100 105 Leu Ser Lys Ala Phe Tyr Glu Ala Lys Lys Gln Cys Ile Ala Thr His 120 125 115 Gly Ala Ala Glu Ala Ile Asn Ser Thr Gln Tyr Leu Ser Tyr Leu Leu 135 140 130 Val His Met Ile Asn Gly Ser Asn Lys Asp Phe Val Phe Ser Pro His 155 150 Val Met Pro Leu Gln Pro Arg Val Met Ile Ile Asn Ala Gly Glu Tyr 165 170 175 Lys Gln Lys Thr Arg Asp Gln Ile Arg Ser Ser Gly Tyr Val Ile Asp 185 190

Thr Leu Glu Ala Ala Met Trp Ser Val Trp Asn Thr Asp Asn Phe Arg 200

Asp Ala Ile Leu Leu Ala Ala Asn Leu Ala Asp Asp Ala Asp Ser Val

Ala Ala Thr Ala Gly Gln Ile Ala Gly Ala Leu Tyr Gly Tyr Ser Gly

215

205

220

Arg Pro Tyr Val Lys Asp Met Thr Gly Gly Pro Phe Gln Leu Arg



230 235 Ile Pro Gln Glu Trp Lys Asn Asn Leu Val Gln His Glu Arg Ile Ala 250 245 Lys Met Ala Gly Glu Leu Phe Asp Arg Ala Pro Glu Asp Thr Phe Leu 265 260

<210> 6753 <211> 1457 <212> PRT

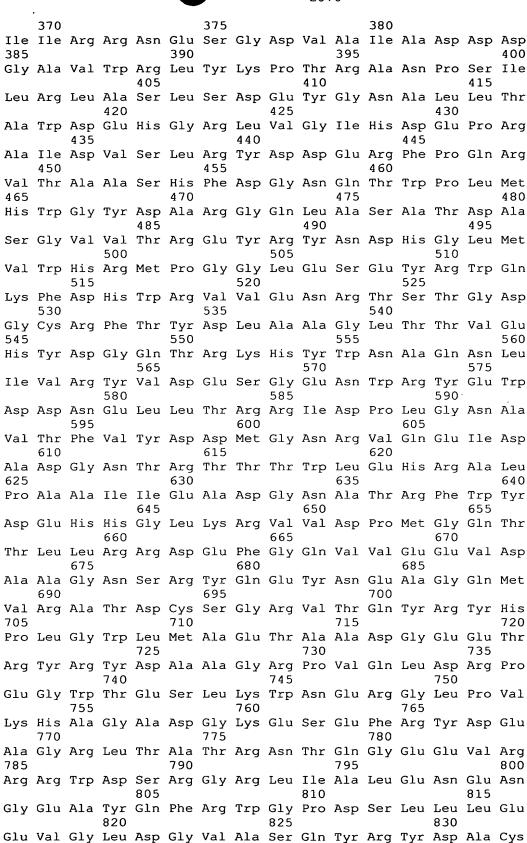
<213> Enterobacter cloacae <400> 6753 Gly Met Ser Asp Asn Asn Ala Ala Arg Lys Gly Asp Glu Ile Ile His Ser Ser Ile Phe Ala Asp Ile Thr Ser Ile Val Ala Glu Gly Ala Ala 25 40 55 60 75 70

Tyr Ala Val Ile Gly Ala Ala Val Gly Ala Ala Ala Thr Val Ala Ala Pro Leu Leu Gly Ala Gly Ala Ala Ala Gly Val Ala Ala Ile Gly Ser Ser Cys Leu Leu Ser Gly Ile Ile Gly Gly Val Leu Ala Asn Val Ala Gly Ile Thr Asp Asp Ile Ser Asn Ala Ala Glu Gly Leu Gly Asn 8.5 90 Ala Leu Phe Pro Pro Ser Pro Ala Gly Lys Ile Thr Thr Gly Ser Asn 105 110 100 Asn Val Leu Thr Asn Ala Ile Pro Ala Ala Arg Ala Ala Gly Thr Leu 120 Thr Pro Ala Asp Thr Pro Ser Pro Glu Pro Gln Ser Pro Gly Ser Phe 135 140 Ala Asp Tyr Ala Gly Met Leu Leu Ser Ala Ala Gly Gln Phe Gly Ser 150 155 Glu Met Trp Gln Pro Ser Val Ala Ser Ala Ala Ala Gly Thr Ser Pro 170 165 Leu Glu Glu Asp Lys Val Ala Cys Glu Lys His Ser Gly Pro Gln Tyr 190 180 185 Leu Ala Glu Gly Ser Lys Ser Val Phe Ile Asn Gly Gln Pro Ala Val 200 205 Arg Ala Lys Asp Arg Thr Thr Cys Glu Gly Thr Val Ser Asp Asp Val 215 220 Ser Pro Asn Val Ile Ile Gly Gly Asp Thr Leu Thr Val Arg Asp Ile 230 235 Lys Ser Gly Lys Thr Pro Gly Leu Ala Leu Gly Met Ile Ala Leu Ser 250 Leu Leu Arg Gly Arg Pro Gly Lys Ile Leu Lys Asn Met Pro Cys Ala 265 Leu Ala Ala Ala Gly Gly Met Leu Ala Asp Met Ala Val Asn Ala 280

Val Phe Gly Ser Ser His Pro Val His Ala Ala Thr Gly Val Lys Val 295 300 Leu Asn Asp Asp Glu Leu Asp Phe Ser Leu Pro Gly Arg Phe Pro 315 310 Leu Arg Trp Gln Arg Ser Tyr Asn Ser Leu Thr Thr Arg Glu Gly Leu 330 325 Phe Gly Leu Gly Trp Ala Thr Thr Phe Asp Ser Tyr Leu Thr Leu Glu

345 350 Glu Asn Asn Ala Thr Trp Phe Asp Glu Thr Gly Arg Glu Leu Ser Phe 360 365 Glu Leu Pro Pro Val Asp Arg Ala Phe Tyr Ser Ile Ser Glu Gly Ile





840

855

Gly Arg Thr Ile Ala Arg Thr Phe Ala Ala Gly His Pro Glu Ala Ile

845

860

Thr His Ala Phe Ala Trp Ser Ala Ser Gly Gln Leu Val Ala Arg Thr 870 875 Thr Pro Glu Gly Gln Thr Arg Tyr His Tyr Thr Pro Ser Gly Leu Leu 885 890 Ser Arg Ile Gly Leu His Pro Ala Leu Ser Ala Asp Ala Trp Ser Ala 900 905 Glu Ala Glu Gln Glu Leu Val Phe Glu Tyr Asp Ala Leu Gly Arg Val 920 Thr Arg Glu Thr Gly Glu His Gly Glu Leu Ala Trp Glu Tyr Asp Ala 935 Leu Gly Asn Arg Thr Ser Val Thr Leu Pro Asp Gly Arg Glu Leu Lys 950 955 Gln Phe Tyr Tyr Gly Ser Gly His Leu Leu Ser Ile Ala Leu Asp Lys 965 970 Leu Ser Val Ser Asp Phe Thr Arg Asp Glu Leu His Arg Glu Thr Ser 980 985 Arg Thr Gln Gly Leu Leu Thr Thr Arg Ser Glu Tyr Asp Arg Leu Gly 1000 1005 Arg Leu His Arg Arg Asp Val Phe Thr Gly Asn Ala Gln Arg Pro Ser 1010 1015 1020 Pro Arg Arg Trp Ser Arg Arg Trp Asp Tyr Asp Tyr Arg Asn Asn Leu 1030 1035 Val Arg Glu Glu Arg Asp Asp Asn Pro Phe Asn Trp Tyr Arg Trp Gln 1045 1050 Tyr Asp Ser Ala Gly Arg Leu Leu Val Gln Asp Gly Thr Leu Pro Gly 1060 1065 1070 Gln Glu Gln Trp Arg Trp Asp Ala Ala Gly Asn Pro Leu Glu Gly Ser 1080 1085 Val Glu Lys Val Thr His Asn Arg Leu Thr Gln Leu Asn Gly Ile Arg 1095 1100 Trp Arg Tyr Asp Val His Gly Arg Thr Val Glu Lys Asp Asn Gly Gln 1110 1115 Thr Arg Trp His Tyr Arg Tyr Asp Gly Glu His Arg Leu Thr Glu Val 1125 1130 Ile Ser Gln Pro Arg Asp Arg Asn Arg Pro Gln Thr Gln Val Ser Phe 1145 1140 Arg Tyr Asp Pro Leu Gly Arg Arg Ile Ser Lys Thr Arg Arg Gln Met 1160 1155 Leu Gly Gly Gln Pro Ala Gly Lys Pro Val Thr Thr Arg Phe Val Trp 1175 1180 Glu Gly Phe Arg Leu Leu Gln Glu Val His Gly Glu Val Pro Leu Thr 1190 1195 Tyr Val Tyr Ser Asp Gln Asp Ser Tyr Asp Pro Leu Ala Arg Ile Asp 1205 1210 Gly Val Asp Ala Pro Glu Ile Phe Trp Phe His Cys Gln Pro Asn Gly 1220 1225 1230 Thr Pro Glu Arg Met Thr Asp Ser Glu Gly Gln Val Arg Trp Val Gly 1240 1245 Val Asn Ser Ala Trp Gly Lys Leu Leu Arg Glu Ser Glu Thr Gln Val 1255 1260 Ser Gly Tyr Ser Gln Asn Leu Arg Met Gln Gly Gln Tyr Leu Asp Arg 1270 1275 Glu Thr Gly Leu His Tyr Asn Leu Phe Arg Tyr Tyr Asp Pro Asp Cys 1285 1290 Gly Leu Phe Thr Gln Gln Asp Pro Ile Gly Leu Ala Gly Gly Ile Asn 1300 1305 1310 Leu Tyr Gln Tyr Ala Pro Asn Ala Leu Gly Trp Val Asp Pro Trp Gly 1320 Leu Lys Cys Gly Phe Ser Gln Lys Asp Arg Ile Thr Gln Arg Trp Val 1335 Asp Arg Leu Thr Gly Lys Lys Pro Ala Asp Val His Asn Ile Leu Thr

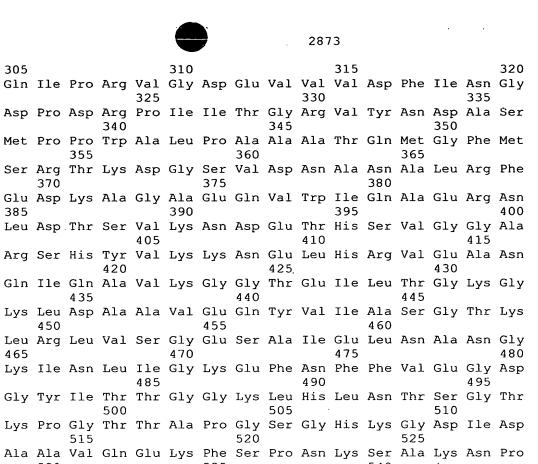


1350 1355 Ser Lys Gly Trp Thr Arg Thr Tyr Pro Gln Ala Asn Lys Pro Gly Ala 1365 1370 Ile Gln His Ile Gln Tyr Val Lys Thr Thr Lys Ser Gly Thr Thr Tyr 1385 Lys Leu Asp Tyr His Pro Gly Gly Thr Pro Thr Gln Pro Asn Ile His 1400 1405 Gly Asn Asp Tyr Trp Lys Val Tyr Arg Glu Val Asp Gly Ala Asp Val 1415 1420 Val Tyr Gly Arg Ile Gly His Gly Glu Phe Lys Asn Tyr Asp Leu Ile 1430 1435 Thr Asp Ser Pro Val Tyr Val Asp Gly Val Leu Leu Asn Gly Gly Val 1445 1450

<210> 6754 <211> 761 <212> PRT <213> Enterobacter cloacae

<400> 6754

Asn Ala Thr Val Thr Cys Val Ser Ser Asn Ala Gln Thr Val Arg Arg 10 Leu Ser Lys Pro Cys Trp Val Ser Ile Lys Leu Asn Leu Gln Lys Gln 20 25 Leu Thr Gly Ser Tyr Arg Val Trp Asp Tyr Cys Val Gln Tyr Gln Glu 40 Ser Ser Leu Asp Phe Ile Ser Arg Leu Met Glu Leu Glu Gly Ile Ala 55 Tyr Tyr Phe Arg His Glu Ala Asp Lys His Thr Leu Val Leu Thr Asp 70 75 Ala Ala Thr Gln His Gln Pro Phe Ser Gly Tyr Glu Val Ile Pro Tyr 90 His Gln Thr Pro Ser Gly Gly Ser Thr Asp Glu Glu Gly Ile Ser Gln 100 105 Trp Ala Leu Glu Asp Cys Val Thr Pro Gly Ile Tyr Ser Leu Asp Asp 120 Tyr Asp Phe Arg Lys Pro Asn Ala Trp Leu Phe Gln Ala Gln Gln Asn 135 Pro Ala Ser Pro Lys Pro Gly Ser Ile Asp Val Tyr Asp Trp Pro Gly 150 155 Arg Phe Val Glu Thr Gly His Ala Glu Phe Tyr Ala Arg Ile Arg Gln 170 165 Glu Arg Trp Gln Val Glu His Gln Gln Ile Gln Ala Thr Ala Thr Ala 185 Ala Gly Ile Ala Pro Gly His Ile Phe Thr Leu Thr Asn Ala Pro Phe 200 Phe Ser Asp Asn Gly Glu Tyr Leu Val Thr Ala Ala Gly Tyr His Phe 215 220 Glu Glu Asn Arg Tyr Ala Ser Gly Glu Gly Glu Thr Ile His Arg Thr 230 235 Asp Phe Thr Val Ile Pro Ala Ser Val Ser Tyr Arg Pro Ala Gln Ser 245 250 Thr Ala Trp Pro Arg Thr Tyr Gly Pro Gln Thr Ala Lys Val Val Gly 260 265 Pro Gln Gly Glu Ser Ile Trp Thr Asp Lys Tyr Gly Arg Val Lys Val 280 285 Lys Phe His Trp Asp Arg Leu Ala Lys Gly Asp Asp Thr Ser Ser Cys 295 300 Trp Val Arg Val Ser Ser Ala Trp Ala Gly Gln Gly Tyr Gly Gly Val



535 540 Ala Pro Ala Ala Ser Ala Pro Ala Ala Thr Arg Pro Lys Pro Thr Thr 550 555 Lys Phe Ala Ser Ala Pro Pro Leu Lys Gly Ser Tyr Val Tyr Gln Asn 565 570 Asn Ser Tyr Asn Ser Asp Val Met Pro Phe Ser Glu Asp Val Lys 585 Glu Ile Asn Lys Ser Pro Thr Leu Gln Thr Gln Leu Lys Asp Leu Lys 600 Asp Lys Gly Trp Ala Ile Gln Pro Gly Ala Ala Gly Gly Gly Ser Tyr Ala Asp Thr Asn Asn Lys Leu Ile Val Met Asp Pro Glu His Met Glu 635 630 Asp Thr Ala Thr Thr Val Gln Thr Leu Ala His Glu Ala Gly His Ala 645 650 Thr Tyr Pro Val Ala Val Asp Ser Ser Ser Lys Glu Ser Phe Ile Asn 665 Ser Gln Leu Met Asp Glu Gly Gly Ala Thr Leu Asn Asn Ile Lys Ile 680 Gln Arg Glu Ile Leu Ala Asn Gly Gly Ile Asp Ile Asp Ile Ala Gly 695 700 Ser Ala Glu Asn Leu Lys Ala Tyr Asn Ser Ala Tyr Asp Lys Met Val 715 710 Ser Gly Glu Leu Ser Arg Ile Asp Ala Ala Lys Ala Ile Gly Lys Val 725 730 735 Tyr Gly Lys Gly Glu Ile Ala Ser Gly Thr Asn Leu Asn Tyr Asn Asp

745

740 Tyr Tyr Gly Gly Phe Tyr Gly Lys

<sup>&</sup>lt;210> 6755

<sup>&</sup>lt;211> 357

<sup>&</sup>lt;212> PRT



#### <213> Enterobacter cloacae

<400> 6755 Lys Pro Cys Ile Ile Gly Ser Thr Val Leu Phe Ile Ala Cys Ser Thr 10 Ala Ala Pro Ser Thr Leu Met Ala Thr Ser Ala Ala Pro Lys Leu Pro 25 Pro Asn Thr Ile Ser Pro Arg Ala Asn Ile Ser Gly Glu Ala Asn His Ser Ala Thr Leu Arg Pro Ser Ile Pro Thr Thr Ala Gln His Met Val 55 Val Arg Ile Thr Ala Arg Val Pro Lys Arg Phe Thr Ser Gln Ala Glu 70 75 Gln Arg Met Pro Leu Ile Glu Pro Ile Asp Arg Pro Asn Ser Thr Ile 8.5 90 Pro Ile Ser Ala Val Glu Thr Asp Ser Val Ser Arg Ile Ala Gly Val 100 105 Arg Val Ala Gln Glu Ala Ile Ser Ser Pro Gly Met Lys Lys Asn Ile 120 115 125 Asn Ser Ala His Met Arg Arg Cys Arg Ala Leu Arg Gly Glu Val Ser 135 140 Val Ile Gly Ile Ser Thr Arg Ser Thr Thr Ile Ala Thr Thr Leu Ala 150 155 Thr Leu Cys Thr Phe Val His Lys Leu Asp Glu Asp Phe Met Ser Arg 165 170 Pro Pro Asn Asp Pro Asn Arg Arg Glu Lys Ile Leu Gln Ala Thr Leu 180 185 Asp Thr Ile Ala Glu His Gly Ile His Ala Val Thr His Arg Lys Ile 200 Ala Thr Cys Ala Gly Val Pro Leu Gly Ser Met Thr Tyr Tyr Phe Asp 215 220 Gly Met Glu Ser Leu Leu Glu Glu Ala Phe Thr Trp Phe Thr Gln Gln 230 235 Met Ser Gln Gln Tyr Arg Asp Phe Phe Ala Gly Val Thr Gly Arg Glu 245 250 Arg Ala Cys Glu Ala Ile Thr Thr Leu Ile Asn Ser Ser Ala Val Thr 265 270 Thr Pro His Asn Met Ala Leu Met Tyr Gln Leu Tyr Ala Phe Met His 280 Arg Ser Ala Ala Leu Lys Thr Val Met Gln Asp Trp Met Lys Met Ser 295 300 Gln Thr Thr Leu Glu Gln Trp Phe Asp Ser Ala Thr Ala Arg Ala Leu 310 315 Asp Ala Phe Ile Glu Gly Met Thr Leu His Phe Val Thr Asp Arg Ser 330 Pro Leu Thr Arg Glu Glu Ile Arg Val Met Val Gly Arg Ile Ala Gly 345 Glu Asp Thr Val 355 <210> 6756

<211> 246

<212> PRT

<213> Enterobacter cloacae

<400> 6756

Met Ser Thr Arg Lys Lys Leu Gly Leu Thr Asn Thr Thr Phe Lys Thr 10 Val His Gly Leu Asp Ala Pro Gly Gln Phe Ser Thr Ala Arg Asp Met 25 Ala Leu Leu Gly Lys Ala Leu Ile His Asp Val Pro Asp Glu Tyr Ala

40 Ile His Lys Glu Lys Glu Phe Thr Phe Asn Asn Ile Arg Gln Pro Asn 55 Arg Asn Arg Leu Leu Trp Ser Ser Asn Val Asn Val Asp Gly Met Lys 75 Thr Gly Thr Thr Ala Gly Ala Gly Tyr Asn Leu Val Ala Ser Ala Thr 90 85 Gln Gly Asp Met Arg Leu Ile Ser Val Val Leu Gly Thr Lys Thr Asp 105 110 Arg Ile Arg Phe Asn Glu Ser Glu Lys Leu Leu Thr Trp Gly Phe Arg 120 125 Phe Phe Glu Thr Val Thr Pro Ile Lys Pro Asp Ala Thr Phe Val Ser 135 140 Gln Arg Val Trp Phe Gly Asp Lys Ser Glu Val Asn Leu Gly Ala Gly 150 Glu Ala Gly Ser Val Thr Ile Pro Arg Gly Gln Leu Lys Asn Leu Lys 170 Ala Ser Tyr Thr Leu Thr Glu Pro Gln Leu Thr Ala Pro Leu Lys Lys 185 Gly Gln Val Val Gly Thr Ile Asp Phe Gln Leu Asn Gly Lys Ser Ile 200 Glu Gln Arg Pro Leu Val Val Met Glu Ala Val Glu Glu Gly Phe 215 220 Phe Ser Arg Ile Trp Asp Phe Val Leu Met Lys Phe His Gly Trp Phe Gly Ser Trp Phe Ser

<210> 6757

<211> 414

<212> PRT

<213> Enterobacter cloacae

<400> 6757

Arg Asp Cys Met Ile Asn Arg Ser Ser Ser Gly Asn Arg Leu Gly Arg 10 Gln Ala Leu Leu Phe Pro Leu Cys Leu Val Leu Tyr Glu Phe Ser Thr 25 Tyr Ile Gly Asn Asp Met Ile Gln Pro Gly Met Leu Ala Val Val Glu 40 45 Gln Tyr Asn Ala Gly Ile Glu Trp Val Pro Thr Ser Met Thr Ala Tyr 55 60 Leu Ala Gly Gly Met Phe Leu Gln Trp Leu Leu Gly Pro Leu Ser Asp 7.0 75 Arg Ile Gly Arg Arg Pro Val Met Leu Thr Gly Val Val Trp Phe Ile 85 90 Val Thr Cys Leu Ala Thr Leu Leu Ala Gln Asn Ile Glu Gln Phe Thr 105 Leu Leu Arg Phe Leu Gln Gly Val Ser Leu Cys Phe Ile Gly Ala Val 120 Gly Tyr Ala Ala Ile Gln Glu Ser Phe Glu Glu Ala Val Cys Ile Lys 135 140 Ile Thr Ala Leu Met Ala Asn Val Ala Leu Ile Ala Pro Leu Gly 150 155 Pro Leu Val Gly Ala Ala Trp Val His Val Ala Pro Trp Glu Gly Met 170 165 Phe Val Leu Phe Ala Ala Leu Ala Ala Ile Ser Phe Phe Gly Leu His 180 185 Arg Ala Met Pro Glu Thr Ala Thr Arg Leu Gly Glu Lys Leu Ser Leu 200 Lys Glu Leu Gly Arg Asp Tyr Lys Ala Val Leu Gln Asn Gly Arg Phe

215 220 Val Ala Gly Ala Leu Ala Thr Gly Phe Val Ser Leu Pro Leu Leu Ala 230 235 Trp Ile Ala Gln Ser Pro Val Ile Ile Ser Gly Glu Gln Leu Ser 245 250 Ser Tyr Glu Tyr Gly Leu Leu Gln Val Pro Ile Phe Gly Ala Leu Ile 265 Ile Gly Asn Leu Val Leu Ala Arg Leu Thr Ser Arg Arg Thr Val Arg 280 Ser Leu Ile Ile Met Gly Gly Trp Pro Ile Ala Ala Gly Leu Ile Ile 295 300 Ala Ala Val Ala Thr Val Ala Ser Ser His Ala Tyr Leu Trp Met Thr 310 315 Ala Gly Leu Ser Ile Tyr Ala Phe Gly Ile Gly Val Ala Asn Ala Gly 330 325 Leu Val Arg Leu Thr Leu Phe Ala Ser Glu Met Ser Lys Gly Thr Val 340 345 350 Ser Ala Ala Met Gly Met Leu Gln Met Leu Ile Phe Thr Val Gly Ile 360 Glu Val Ser Lys His Ala Tyr Ala Phe Gly Gly Asn Gly Leu Phe Ser 375 380 Leu Phe Asn Leu Ala Asn Gly Val Leu Trp Ile Ala Leu Met Val Val 390 395 Phe Leu Lys Asp Lys Arg Val Gly Asn Ala Leu Gln Pro 405

<210> 6758

<211> 163

<212> PRT

<213> Enterobacter cloacae

<400> 6758

Gly Asn Tyr Met Ser Thr Pro Ala His Leu Trp Leu Glu Asp Glu Asn Gly Ser Pro Ile Ile Gly Ser Cys Met Met Pro Thr Arg Leu Gly Ser Ile Glu Leu Lys Ser Phe Ser His Gly Val Thr Ile Pro Ala Asp Pro Ser Trp Gly Lys Leu Thr Gly Thr Arg Val His Arg Pro Ile Thr Ile 55 Val Lys Glu Phe Asp Gln Thr Thr Pro Leu Leu Tyr Arg Ala Val Cys 75 Glu Gly Arg Val Met Lys Lys Gly Ile Ile Lys Met Tyr Arg Ile Leu 90 Glu Ser Gly Ile Glu Ala Glu Tyr Phe Asn Ile Val Met Glu Asn Val 100 105 110 Lys Phe Thr Thr Val Ala Pro Phe Met Thr Pro Asn Gly Met Ser Ser 115 120 125 Thr His Leu Glu Thr Leu Glu Leu Arg Tyr Glu Ala Ile Ser Trp Lys 135 140 Tyr Thr Glu Gly Asn Ile Ile Tyr Arg Asp Thr Trp Asn Asp Arg Cys 145 150 155 Cys Ala

<sup>&</sup>lt;210> 6759

<sup>&</sup>lt;211> 431

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Lys Met Phe Leu Ala Gly Ala Ile Phe Leu Phe Thr Leu Val Leu Val Ile Trp Gln Pro Lys Gly Leu Ser Ile Gly Trp Ser Ala Thr Ile Gly Ala Val Leu Ala Leu Met Ser Gly Val Ile His Ile Asn Asp Ile Pro 40 Val Val Trp Asn Ile Val Trp Asn Ala Thr Ala Thr Phe Ile Ala Val 55 Ile Ile Ile Ser Leu Leu Asp Glu Ser Gly Phe Phe Glu Trp Ala 70 75 Ala Leu His Val Ala Arg Trp Gly Asn Gly Arg Gly Arg Leu Leu Phe 90 85 Thr Trp Ile Val Leu Leu Gly Ala Ala Val Ala Ala Leu Phe Ala Asn 100 105 Asp Gly Ala Ala Leu Ile Leu Thr Pro Ile Val Ile Ala Met Leu Leu 120 125 Ala Leu Gly Phe Ser Lys Gln Ala Thr Leu Ala Phe Val Met Ala Ala 135 140 Gly Phe Ile Ala Asp Thr Ala Ser Leu Pro Leu Ile Val Ser Asn Leu 150 155 Val Asn Ile Val Ser Ala Asp Phe Phe Lys Leu Gly Phe Ser Glu Tyr 170 Ala Ser Val Met Ile Pro Val Asp Ile Ala Ala Ile Ala Ala Thr Leu 185 Val Met Leu His Leu Phe Phe Arg Asn Glu Ile Pro Pro Glu Tyr Asp . 200 Leu Ala Lys Leu Arg Glu Pro Ala Leu Ala Ile His Asp Leu Pro Thr 215 220 Phe Arg Thr Gly Trp Ile Val Leu Leu Leu Leu Val Gly Phe Phe 230 235 Val Leu Glu Pro Leu Gly Ile Pro Val Ser Ala Ile Ala Thr Thr Gly 250 Ala Leu Ile Leu Phe Ala Val Ala Lys Arg Gly His Ala Ile Asn Thr 265 Gly Lys Val Leu Arg Gly Ala Pro Trp Gln Ile Val Ile Phe Ser Leu 280 Gly Met Tyr Leu Val Val Tyr Gly Leu Arg Asn Ala Gly Leu Thr Glu 295 Ser Leu Ser Gly Val Leu Asp Tyr Leu Ala Gly Tyr Gly Leu Trp Val 310 315 Thr Thr Leu Gly Thr Gly Phe Ile Thr Ala Phe Leu Ser Ser Ile Met 325 330 Asn Asn Met Pro Thr Val Leu Ile Gly Ala Leu Ser Ile Glu Gly Ser 345 Ala Ala Thr Gly Leu Val Lys Glu Ala Met Ile Tyr Ala Asn Val Ile 360 Gly Cys Asp Leu Gly Pro Lys Ile Thr Pro Ile Gly Ser Leu Ala Thr 375 380 Leu Leu Trp Leu His Val Leu Ala Gln Lys Asn Met Thr Ile Thr Trp 395 390 Gly Tyr Tyr Phe Arg Thr Gly Ile Ile Met Thr Leu Pro Val Leu Phe 405 410 Val Thr Leu Ala Ala Leu Ala Leu Arg Leu Ser Phe Thr Leu 425

<sup>&</sup>lt;210> 6760

<sup>&</sup>lt;211> 147

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

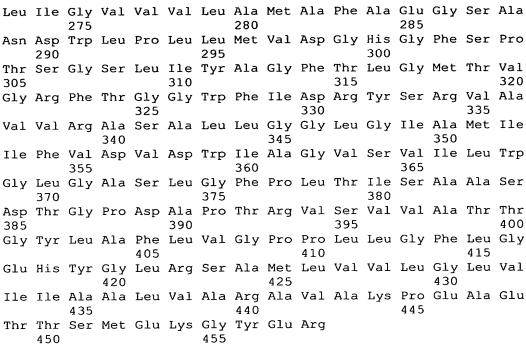


Val Thr Asp Met Ser His Ile Thr Ile Tyr His Asn Pro Ala Cys Gly 10 Thr Ser Arg Asn Thr Leu Glu Met Ile Arg Asn Ser Gly Thr Glu Pro 25 Glu Ile Ile Leu Tyr Leu Glu Asn Pro Pro Ser Arg Asp Glu Leu Thr 40 Arg Leu Ile Ala Asp Met Gly Ile Ser Ile Gly Asp Leu Leu Arg Lys 55 Asn Val Glu Pro Tyr Glu Gln Leu Gly Leu Ser Gln Gly His Phe Thr 70 7.5 Asp Asp Gln Leu Ile Asp Phe Met Leu Gln Tyr Pro Ile Leu Ile Asn 90 8.5 Arg Pro Ile Val Val Thr Pro Leu Gly Thr Arg Leu Cys Arg Pro Ser 105 110 100 Glu Val Val Leu Asp Ile Leu Pro Asp Ala Gln Lys Gly Ala Phe Thr 120 Lys Glu Asp Gly Glu Val Val Asp Ala Asn Gly Lys Lys Ile Ser 130 135 Arg Gln 145 <210> 6761

<210> 6761 <211> 459 <212> PRT

<213> Enterobacter cloacae

<400> 6761 Ile Pro Cys Ser Ala Met Val Ser Ser Val Ala Trp Ser Ile Phe Ser 10 Arg Arg Leu Gly Ser Phe Gly Gly Leu Leu Ile Lys Ser Ser Ser Ser Leu Cys Thr Asn Val His Lys Val Ala Ser Val Val Ala Ile Val Val Leu Leu Val Leu Ile Pro Met Thr Leu Thr Ser Pro Arg Lys Ala Leu His Leu Arq Met Trp Ala Leu Phe Met Phe Phe Phe Ile Pro Gly Leu Leu Met Ala Ser Trp Ala Thr Arg Thr Pro Ala Ile Arg Asp Thr Leu Ser Val Ser Thr Ala Glu Met Gly Ile Val Leu Phe Gly Leu Ser Ile 105 Gly Ser Met Ser Gly Ile Leu Cys Ser Ala Trp Leu Val Lys Arg Phe 120 Gly Thr Arg Ala Val Ile Arg Thr Thr Met Cys Cys Ala Val Val Gly 135 140 Met Leu Gly Leu Ser Val Ala Leu Trp Phe Ala Ser Pro Leu Met Phe 150 155 Ala Leu Gly Leu Met Val Phe Gly Gly Ser Phe Gly Ala Ala Glu Val 165 170 Ala Ile Asn Val Glu Gly Ala Ala Val Glu Gln Ala Met Asn Lys Thr 180 185 190 Val Leu Pro Met Met His Gly Phe Tyr Ser Leu Gly Thr Leu Ala Gly 200 Ala Gly Val Gly Met Ala Leu Thr Ala Leu Gly Ile Ala Ala Asn Val 215 220 His Ile Leu Leu Ala Ala Leu Val Cys Ile Ile Pro Ile Leu Thr Gly 230 235 Ile Arg Ala Ile Pro Ala Gly Thr Gly Gln His Ala Thr Asp Glu Gln 250 Lys Ser Ala Glu Lys Gly Leu Pro Phe Tyr Arg Asp Phe Gln Leu Met



<210> 6762

<211> 247

<212> PRT

<213> Enterobacter cloacae

<400> 6762 Trp Asp Ser Gly Arg Ser Cys Ala Ala Arg Ile Phe Ser Leu Thr Thr 10 Cys Gly Pro Gly Gly Ser Gly Phe Pro Arg Cys Trp Phe Thr Gly Trp Phe Pro Pro Gly Leu Leu Lys Ser Asn Glu Ile Met Leu Glu Asn Leu Asn Tyr Glu Leu Phe Tyr Leu Leu Asn Ala Thr Pro Ser Ser Pro Glu Trp Met Ile Asp Leu Ala Thr Phe Ile Ala Lys Asp Val Ile Ser 75 Ile Val Pro Ala Leu Ala Val Ile Leu Trp Leu Trp Gly Pro Arg Thr 85 Gln Val Thr Ala Gln Arg His Leu Val Ile Lys Met Ala Met Ala Ile 105 Gly Val Ser Val Leu Ala Ser Tyr Val Leu Gly His Ala Phe Pro His 120 125 Asp Arg Pro Phe Val Asp Arg Val Gly Tyr Asn Phe Leu His His Ala 135 140 Pro Asp Asp Ser Phe Pro Ser Asp His Gly Thr Val Ile Phe Thr Phe 150 155 Ala Leu Ala Phe Leu Phe Trp His Arg Leu Trp Ser Gly Val Val Leu 165 170 Met Gly Val Ala Val Ala Ile Ala Trp Ser Arg Val Tyr Leu Gly Val 185 His Trp Pro Leu Asp Met Val Gly Gly Phe Leu Val Gly Leu Met Gly 200 205 Cys Val Ser Ala Ala Ile Leu Trp Ser Leu Phe Gly Pro Ala Leu Tyr 220 215 Arg Gly Leu Ser Gln Ala Tyr Arg Val Leu Phe Ala Leu Pro Ile Arg

## Lys Gly Trp Ile Arg Asp 245

<210> 6763 <211> 143 <212> PRT <213> Enterobacter cloacae

<400> 6763

Arg Val Leu Gln Ser Leu Phe Tyr Pro Ser Cys Tyr Leu Leu Leu Leu Ser Phe Thr Thr Ile Lys Tyr Asp Leu Met His Met Lys Gln Asn Ile 25 Gln Asp Asp Arg Met Leu His Pro Leu Gln Leu Phe Lys Thr Leu Ser 40 45 Asp Glu Thr Arg Leu Ser Ile Val Met Leu Leu Arg Glu Ala Gly Glu 55 Leu Cys Val Cys Asp Leu Cys Ser Ala Thr Asn Glu Pro Gln Pro Lys 70 7.5 Val Ser Arg His Met Ala Leu Leu Arg Glu Ala Gly Leu Val Ile Asp 90

Arg Arg Glu Gly Lys Trp Ile Tyr Tyr Arg Leu Ser Pro Asn Met Pro 100 105

Ala Trp Ala Ala Thr Val Ile Asp Asn Ser Trp Asn Cys Leu Arg Glu 120

Glu Thr Arg Met Lys Leu Lys Asn Arg Leu Pro Gly Ser Cys 135

<210> 6764 <211> 295

<212> PRT <213> Enterobacter cloacae

<400> 6764

Ser Leu Leu Pro Pro Trp Trp Arg Glu Arg Trp Gln Asn Arg Lys Gln Lys Gln Arg Gln Trp Arg Arg Asp Met Ser Val Lys Leu Ile Ala Val Asp Met Asp Gly Ser Phe Leu Ser Asp Ala Lys Thr Tyr Asn Arg Ala Arg Phe Leu Ala Gln Tyr Ala Arg Met Lys Ala Gln Gly Ile Arg Phe Val Val Ala Ser Gly Asn Gln Tyr Tyr Gln Leu Ile Ser Phe Pho 75 Glu Ile Ala His Glu Ile Ala Phe Val Ala Glu Asn Gly Gly Trp Val 85 90 Val Asp Ala Gly Glu Asp Val Phe Asn Gly Glu Leu Ser Lys Glu His 100 105 110 Phe Leu Thr Val Ala Thr Leu Leu Asn Asp Val Pro Gly Ile Glu Ile 115 120 125 Ile Ala Cys Gly Lys Asn Ser Ala Tyr Thr Leu Lys Thr Tyr Asn Asp 135 140 Leu Phe Lys Glu Ile Ala Ala Lys Tyr Tyr His Arg Leu Glu Ser Val 150 155 Ser Ser Phe Asp Asn Leu Asn Asp Ile Phe Phe Lys Phe Gly Leu Asn 165 170 Val Ser Asp Asp Glu Ile Pro Arg Ile Gln Ala Leu Leu His Glu Lys

185 Leu Gly Asp Ile Met Val Pro Val Thr Thr Gly His Gly Ser Ile Asp 200 Leu Ile Ile Pro Gly Val His Lys Ala Asn Gly Leu Arg Ile Leu Gln 2881

215 220 Ala Arg Trp Gly Ile Glu Asp Ser Glu Val Val Ala Phe Gly Asp Ser 230 235 Gly Asn Asp Val Glu Met Leu Arg Gln Ala Gly Phe Gly Phe Ala Met 245 250 Ala Asn Ala Arg Pro His Ile Lys Ala Val Ala Arg Tyr Glu Ala Pro 265 270 Asn Asn Asn Asp Glu Gly Val Leu Asp Val Ile Asp Arg Val Leu Asp 280 Gly Glu Ala Pro Phe Asn 295 <210> 6765 <211> 267 <212> PRT <213> Enterobacter cloacae <400> 6765 Ala Pro Ala Leu Arg Gly Leu Thr Phe Leu Ala Arg Gly Ser Met Glu 10 Thr Arg Arg Asp Asp Ile Ala Gln Leu Leu Gln Ala Leu Lys Arg 20 25 Ser Asp Lys Leu His Leu Lys Glu Ala Ala Thr Leu Leu Gly Val Ser 35 40 Glu Met Thr Ile Arg Arg Asp Leu Asn Asp Ser Ala Pro Val Val 55 60 Leu Leu Gly Gly Tyr Ile Val Leu Glu Pro Arg Ser Ala Ser His Tyr 70 75 Leu Leu Ser Asp Gln Lys Thr Arg Leu Val Glu Glu Lys Arg Lys Ala 90 95 Ala Arg Leu Ala Ala Ser Leu Val Gln Pro His Gln Thr Leu Phe Phe 105 Asp Cys Gly Thr Thr Thr Pro Trp Ile Ile Glu Ala Ile Asn Ser Thr 120 Val Pro Phe Thr Ala Val Cys Tyr Ser Leu Asn Thr Phe Leu Ala Leu 135 Gln Glu Lys Pro Ala Cys Arg Val Ile Leu Cys Gly Gly Glu Phe His 150 155 Ala Ser Asn Ala Ile Phe Lys Pro Leu Asn Ile Gln Asp Thr Leu Ser 170 Asn Val Cys Pro Asp Ile Ala Phe Tyr Ser Ala Ala Gly Val Asn Val 180 185 Lys Gln Gly Ala Thr Cys Phe Asn Leu Glu Glu Leu Pro Val Lys Gln 195 200 Trp Ala Leu Asn Ala Ala Gln Gln His Val Leu Val Val Asp His Ser 215 220 Lys Phe Gly Lys Val Arg Pro Ala Arg Met Gly Glu Leu Ser Arg Phe 235 230 Asp Ala Ile Val Ser Asp Cys Arg Pro Asp Asp Glu Leu Val Ala Tyr 245 250 Ala Lys Ala Gln Gln Val Lys Leu Met Tyr 260 <210> 6766 <211> 136 <212> PRT <213> Enterobacter cloacae <400> 6766 Gly Phe Thr Glu Lys Asp Lys Val Met Arg His Arg Lys Ser Gly Arg



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Gln Leu Asn Arg Asn Ser Ser His Arg Gln Ala Met Phe Arg Asn Met
                                25
Ala Gly Ser Leu Val Arg His Glu Ile Ile Lys Thr Thr Leu Pro Lys
                            40
Ala Lys Glu Leu Arg Arg Val Val Glu Pro Leu Ile Thr Leu Ala Lys
                        55
                                            60
Thr Asp Ser Val Ala Asn Arg Arg Leu Ala Phe Ala Arg Thr Arg Asp
                                        75
                    70
Asn Glu Ile Val Ala Lys Leu Phe Asn Glu Leu Gly Pro Arg Phe Ala
                85
                                    90
Ser Arg Ala Gly Gly Tyr Thr Arg Ile Leu Lys Cys Gly Phe Arg Ala
                                105
            100
Gly Asp Asn Ala Pro Met Ala Tyr Ile Glu Leu Val Asp Arg Ser Glu
                            120
Lys Ala Glu Ala Ala Glu
    130
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<210> 6767

<211> 162

<212> PRT

<213> Enterobacter cloacae

<400> 6767

Gly Gly His Ala Met Phe Asp Val Leu Met Tyr Leu Phe Glu Thr Tyr Ile His Asn Glu Ala Glu Met Gln Val Asp Gln Asp Lys Leu Thr Arg Asp Leu Thr Asp Ala Gly Phe Glu Arg Glu Asp Ile Tyr Asn Ala Leu Met Trp Leu Asp Lys Leu Ala Asp Tyr Gln Asp Gly Leu Ala Glu Pro 60 Met Gln Leu Ala Ser Asp Pro Leu Ser Val Arg Ile Tyr Thr Ala Glu 70 Glu Cys Glu Arg Leu Asp Ala Ser Cys Arg Gly Phe Ile Leu Phe Leu 90 Glu Gln Ile Gln Val Leu Asn Leu Glu Thr Arg Glu Met Val Ile Glu 105 Arg Val Met Ala Leu Asp Thr Ala Glu Phe Glu Leu Glu Asp Leu Lys 115 120 Trp Val Ile Leu Met Val Leu Phe Asn Ile Pro Gly Cys Glu Asn Ala 135 Tyr Gln Gln Met Glu Glu Leu Phe Glu Val Asn Glu Gly Met Leu

<210> 6768

<211> 209

145 His

<212> PRT

<213> Enterobacter cloacae

<400> 6768

70 75 Ala Asn Tyr Ala Gln Leu Lys Pro Tyr Ile Asp Asp Ser Met Leu Thr 85 90 Pro Ala Gln Arg Glu Thr Ile Phe Ser Ala Trp Pro Gly Pro Val Thr 105 100 Phe Val Phe Pro Ala Gln Pro Thr Thr Pro Arg Trp Leu Thr Gly Arg 120 125 Phe Asp Ser Leu Ala Val Arg Val Thr Asp His Pro Leu Val Val Glu 135 Leu Cys Gln Ala Phe Gly Lys Pro Leu Val Ser Thr Ser Ala Asn Leu 155 150 Thr Gly Leu Pro Pro Cys Arg Thr Thr Glu Glu Val Leu Ala Gln Phe 170 Gly Ser Asp Phe Pro Val Ala Val Gly Glu Thr Gly Gly Arg Leu Asn 185 Pro Ser Glu Ile Arg Asp Ala Leu Thr Gly Glu Arg Phe Arg Gln Gly

200

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<210> 6769
<211> 122
<212> PRT
<213> Enterobacter cloacae
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<400> 6769 Glu Cys Ile Val Ala Arg Ile Ala Gly Ile Asn Ile Pro Asp Gln Lys 10 His Ala Val Ile Ala Leu Thr Ser Ile-Tyr Gly Val Gly Lys Thr Arg 20 Ser Lys Ala Ile Leu Ala Ala Ala Gly Ile Ala Glu Asp Val Lys Ile 40 Ser Glu Leu Ser Glu Glu Gln Ile Asp Thr Leu Arg Asp Glu Val Ala 55 60 Lys Phe Val Val Glu Gly Asp Leu Arg Arg Glu Ile Ser Met Ser Ile 70 Lys Arg Leu Met Asp Leu Gly Cys Tyr Arg Gly Leu Arg His Arg Arg 85 90 Gly Leu Pro Val Arg Gly Gln Arg Thr Lys Thr Asn Ala Arg Thr Arg

100 105 110

Lys Gly Pro Arg Lys Pro Ile Lys Lys

<210> 6770 <211> 208 <212> PRT <213> Enterobacter cloacae

Gly Arg Leu Asp Asn Val Val Tyr Arg Met Gly Phe Gly Ala Thr Arg
100 105 110

Ala Glu Ser Arg Gln Leu Val Ser His Lys Ala Ile Met Val Asn Gly
115 120 125

Arg Val Val Asn Ile Ala Ser Tyr Gln Val Lys Ala Asn Asp Val Val 130 135 140

Ser Ile Arg Glu Lys Ala Lys Lys Gln Ser Arg Val Lys Ala Ala Leu 145 150 155 160

Glu Leu Ala Glu Gln Arg Glu Lys Pro Thr Trp Leu Glu Val Asp Ala 165 170 175

Gly Lys Met Glu Ser Thr Phe Lys Arg Gln Pro Glu Arg Pro Asp Leu 180 185 190

Ser Ala Asp Ile Asn Glu His Leu Ile Val Glu Leu Tyr Ser Lys 195 200 205

<210> 6771

<211> 153

<212> PRT

<213> Enterobacter cloacae

<400> 6771

Lys Val Asn Thr Lys Asn Lys Gln Gly Val Ala Met Tyr Arg Ile Gly 1  $\phantom{000}$  5  $\phantom{000}$  10  $\phantom{000}$  15

Glu Leu Ala Lys Leu Ala Asn Val Thr Pro Asp Thr Ile Arg Tyr Tyr 20 25 30

Glu Lys Gln Gln Met Ile Asp His Glu Val Arg Thr Glu Gly Gly Phe 35 40 45

Arg Leu Tyr Thr Asp Asn Asp Leu Gln Arg Leu Arg Phe Ile Arg Tyr 50 55 60

Ala Arg Gln Leu Gly Phe Thr Leu Glu Ser Ile Arg Glu Leu Leu Ser 65 70 75 80

Ile Arg Ile Asp Pro Glu His His Thr Cys Gln Glu Ser Lys Ser Ile
85 90 95

Val Gln Ala Arg Leu Asp Glu Val Glu Gly Arg Ile Gln Glu Leu Gln
100 105 110

Ala Met Gln Arg Ser Leu Gln Arg Leu Asn Asp Pro Cys Cys Gly Thr 115 120 125

Ala His Ser Ser Val Tyr Cys Ser Ile Leu Glu Ala Leu Glu Gln Gly 130 135 140

Ala Ser Ser Glu Ala Gln Gly Cys 145 150

<210> 6772

<211> 78

<212> PRT

<213> Enterobacter cloacae

<400> 6772

Asn Arg Phe Phe Thr Thr Gly Leu Ser Val Ser Val Ser 65 70 75

<210> 6773

<211> 102

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<212> PRT
<213> Enterobacter cloacae
<400> 6773
Pro Ala Asn Val Phe Ala Arg Asp Asn Val Met Glu Thr Tyr Ala Val
1 5 10 15
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10 15
Phe Gly Asn Pro Ile Ala His Ser Lys Ser Pro Leu Ile His Gln Leu 20 25 30
Phe Ala Glu Gln Leu Gln Ile Asp His Pro Tyr Gly Arg Val Leu Ala 35 40 45
Pro Val Asp Ala Phe Leu Pro Thr Leu Asn Ser Phe Phe Val Ala Gly 50 55 60
Gly Lys Gly Ala Asn Val Thr Val Pro Phe Lys Glu Glu Ala Phe Gly 65 70 75 80
Arg Ala Asp Glu Leu Thr Glu Arg Ala Cys Leu Leu Pro Arg Gly Leu 85 90

Ala Gly Pro Leu Ile Glu 100

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<210> 6774
<211> 131
<212> PRT
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<213> Enterobacter cloacae

Arg Val 130

<210> 6775 <211> 336 <212> PRT <213> Enterobacter cloacae

2886

				85					90					95	
Arg	Val	Gln	Gly 100	Lys	Asp	Glu	Val	Ile 105	Leu	Thr	Leu	Asn	Lys 110	Ser	Gly
Ile	Gly	Pro 115	Val	Thr	Ala	Ala	Asp 120	Ile	Thr	His	Asp	Gly 125	Asp	Val	Glu
Ile	Val 130	Lys	Pro	Gln	His	Val 135	Ile	Cys	His	Leu	Thr 140	Asp	Glu	Asn	Ala
Ala 145	Ile	Ser	Met	Arg	Ile 150	Lys	Val	Gln	Arg	Gly 155	Arg	Gly	Tyr	Val	Pro 160
Ala	Ser	Ala	Arg	Ile 165	His	Ser	Glu	Glu	Asp 170	Glu	Arg	Pro	Ile	Gly 175	Arg
Leu	Leu	Val	Asp 180	Ala	Cys	Tyr	Ser	Pro 185	Val	Glu	Arg	Ile	Ala 190	Tyr	Asn
Val	Glu	Ala 195	Ala	Arg	Val	Glu	Gln 200	Arg	Thr	Asp	Leu	Asp 205	Lys	Leu	Val
Ile	Glu 210	Met	Glu	Thr	Asn	Gly 215	Thr	Ile	Asp	Pro	Glu 220	Glu	Ala	Ile	Arg
225					230					235					Leu 240
Arg	Asp	Val	Arg	Gln 245	Pro	Glu	Val	Lys	Glu 250	Glu	Lys	Pro	Glu	Phe 255	Asp
Pro	Ile	Leu	Leu 260	Arg	Pro	Val	Asp	Asp 265	Leu	Glu	Leu	Thr	Val 270	Arg	Ser
Ala	Asn	Cys 275	Leu	Lys	Ala	Glu	Ala 280	Ile	His	Tyr	Ile	Gly 285	Asp	Leu	Val
	290	Thr				295		_			300		_	_	_
Ser 305	Leu	Thr	Glu	Ile	Lys 310	Asp	Val	Leu	Ala	Ser 315	Arg	Gly	Leu	Ser	Leu 320
Gly	Met	Arg	Leu	Glu 325	Asn	Trp	Pro	Pro	Ala 330	Ser	Ile	Ala	Asp	Glu 335	

<210> 6776

<211> 170

<212> PRT

<213> Enterobacter cloacae

<400> 6776

Ser Phe Arg Glu Ser Arg Ser Cys Cys Arg Val Ile Cys Ser Asn Val 10 Lys Lys Pro Ala Ser Ala Gly Phe Phe Ile Ser Ala Glu Ser Pro Leu 25 Ile Tyr Asn Val Cys Ile Phe Ser Ala His Pro Leu Glu Phe Ile Met 40 45 Trp Leu Leu Asp Gln Trp Ser Glu Arg His Ile Cys Asp Ala Gln Asn 55 60 Lys Gly Glu Phe Glu Asn Leu Pro Gly Ser Gly Glu Pro Leu Ile Leu 70 75 Asp Asp Asp Ser His Ile Pro Pro Glu Leu Arg Ala Gly Tyr Arg Leu 85 90 Leu Lys Asn Ala Gly Cys Leu Pro Pro Glu Leu Gln Gln Arg Asn Glu 105 110 Ala Val Glu Leu Ala Asp Leu Leu Lys Gly Ile His Lys Asn Asp Pro 120 125 Arg Tyr Ser Glu Ile Ser Arg Arg Leu Ala Leu Ile Glu Leu Lys Leu 135 140 Arg Gln Thr Gly Met Asn Thr Asp Phe Leu His Gly Glu Tyr Ser Glu 150

Arg Leu Ile Gln Lys Ile Asn Lys Glu

<210> 6777 <211> 400 <212> PRT <213> Enterobacter cloacae <400> 6777 Thr Asn Pro Arg Ser Ile Asp Ser Ile Ser Asp Gln Ser Gln Arg Leu Leu Arg Leu Leu Met Ala Gly Lys Arg Met Thr Ser Thr Glu Ile Trp. 25 Leu Arg Leu Ile Asn Ile Gly Ser Leu Tyr Gly Asp Ala Met Leu Glu Ile Ala Gln Arg Leu Leu Arg Gln Ala Thr Val Asp Ala Glu Ala Val 55 Asn Ala Ala Gly Leu Ser Pro Lys His Ala Val Lys Phe Phe Ser Phe Ser Glu Ser Glu Leu Glu Arg Ser Leu Glu Trp Leu Glu His Thr Asp 90 Asn His Leu Leu Thr Ala Asp Asp Pro Arg Phe Pro Pro Leu Leu Arg 105 Ser Ile Pro Asp Phe Pro Gly Ala Leu Phe Val Arg Gly Arg Val Asp 120 Val Leu Asn Ser Met Gln Leu Ala Val Val Gly Ser Arg Ala Pro Ser 135 140 Trp Tyr Gly Glu Arg Trp Gly Lys Met Leu Ser Glu Gln Leu Ser Gln 150 155 Cys Gly Phe Thr Ile Thr Ser Gly Leu Ala Cys Gly Ile Asp Gly Val 165 170 175 Ala His His Ala Ala Leu Ser Ala Lys Gly Arg Ser Val Ala Val Leu 185 190 Gly Asn Gly Leu Phe Ser Leu Tyr Pro Arg Arg His His Ile Leu Ala 200 Glu Gln Leu Ile Ala Ser Glu Gly Ala Ile Val Ser Glu Phe Ser Leu 215 Ser Thr Ser Pro Arg Pro Gly Asn Phe Pro Arg Arg Asn Arg Ile Ile 230 235 Ser Gly Leu Ser Gln Gly Val Leu Val Val Glu Ala Ala Ile Arg Ser 245 250 Gly Ser Leu Val Thr Ala Arg Cys Ala Leu Glu Gln Gly Arg Glu Val Phe Ala Leu Pro Gly Pro Leu Gly Asn Pro Gly Cys Glu Gly Pro His 275 . 280 Trp Leu Ile Lys Gln Gly Ala Thr Leu Val Thr Cys Lys Glu Asp Ile 295 300 Leu Glu Asn Leu Gln Tyr Gly Leu His Trp Leu Gln Asp Asp Leu Gln 310 315 . Lys Arg His Ile Ser Ser Asp Gln Glu Ala Val Ala Leu Pro Phe Pro 325 330 Lys Leu Leu Ala Asn Val Gly Asp Glu Val Thr Pro Val Asp Val Val 340 345 350 Ala Glu Arg Ala Gly Gln Pro Val Pro Val Thr Val Ala Gln Leu Leu 360 Glu Leu Glu Leu Ala Gly Trp Ile Ala Ala Val Pro Gly Gly Tyr Val 380 375 Arg Leu Arg Arg Ala Cys His Val Arg Arg Thr Asp Val Phe Val 400 395 390

<sup>&</sup>lt;210> 6778

<sup>&</sup>lt;211> 199

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6778 Arg Tyr Ala Ala Leu Ile Leu Cys Ala Ala Thr Arg Val Val Met Ala 10 Lys Ser Ala Leu Phe Thr Val His Lys Asn Glu Pro Cys Pro Gln Cys 25 Gly Ala Glu Leu Val Ile Arg Ser Gly Lys His Gly Pro Phe Leu Gly Cys Ser His Tyr Pro Glu Cys Asp Tyr Val Arg Ser Leu Lys Ser Gln Ala Asp Gly His Ile Val Lys Ile Leu Glu Gly Gln Leu Cys Pro Leu Cys Gly Gly Glu Leu Ala Leu Arg Gln Gly Arg Phe Gly Met Phe Ile 90 85 Gly Cys Ser Arg Tyr Pro Glu Cys Asp His Thr Glu Gln Ile Asp Lys 100 105 Pro Asp Glu Thr Ala Ile Ala Cys Pro Gln Cys Gln Arg Gly Gln Leu 120 Val Gln Arg Arg Ser Arg Tyr Gly Lys Thr Phe His Ser Cys Asp Arg 140 135 Tyr Pro Glu Cys Gln Phe Val Ile Asn Phe Lys Pro Val Ala Gly Val 150 155 Cys His Asn Cys Asp Tyr Pro Leu Leu Ile Glu Lys Lys Thr Ala Gln 165 170 Gly Leu Lys Arg Phe Cys Ala Ser Lys Gln Cys Gly Lys Pro Val Ser 180 185 Ala Asp Gln Ile Ser Glu 195

<210> 6779 <211> 441

<212> PRT

<213> Enterobacter cloacae

<400> 6779

Gly Pro Val Phe Pro Gly Ile Phe Ile Phe Thr Val Met Lys Arg Gln Asn Leu Arg Thr Met Ala Ala Gln Ala Val Glu Gln Val Ile Glu Gln Gly Gln Ser Leu Ser Asn Val Leu Pro Pro Leu Gln Gln Lys Val Ser Asp Lys Asp Lys Ala Leu Leu Gln Glu Leu Cys Phe Gly Val Leu Arq Thr Leu Ser Gln Leu Glu Trp Leu Ile Asn Lys Leu Met Ser Arg Pro Met Ser Gly Lys Gln Arg Thr Val His Tyr Leu Ile Met Val Gly Phe 85 90 Tyr Gln Leu Leu His Thr Arg Ile Pro Pro His Ala Ala Leu Ala Glu 105 Thr Val Glu Gly Ala Val Ala Ile Lys Arg Pro Gln Leu Lys Gly Leu 120 Ile Asn Gly Val Leu Arg Gln Phe Gln Arg Gln Gln Asp Glu Leu Leu 135 140 Ala Glu Phe Ala Gln Ser Glu Ala Arg Phe Leu His Pro Glu Trp Leu 150 155 Leu Asn Arg Leu Lys Lys Ala Tyr Pro Gln Gln Trp Gln Asp Ile Val 165 170 Asp Ala Asn Asn Gln Arg Pro Pro Met Trp Leu Arg Val Asn Arg Asn 185 His His Thr Arg Asp Ala Trp Leu Ala Leu Leu Glu Glu Thr Gly Met

Ser Gly Phe Thr His Ala Ala Tyr Pro Asp Ala Val Arg Leu Ala Ser 215 220 Pro Ala Pro Val His Ala Leu Pro Gly Phe Glu Glu Gly Trp Val Thr 230 235 Val Gln Asp Ala Ser Ala Gln Gly Cys Met Ala Trp Leu Glu Pro Lys 245 250 Asp Gly Glu Gln Ile Leu Asp Leu Cys Ala Ala Pro Gly Gly Lys Thr 265 270 Thr His Ile Leu Glu Val Ala Pro Gln Ala Cys Val Met Ala Val Asp 280 Val Asp Glu Gln Arg Leu Ser Arg Val Tyr Asp Asn Leu Lys Arg Leu 295 Gly Met Lys Ala Gln Val Lys Gln Gly Asp Gly Arg Lys Pro Ala Asp 310 315 Trp Cys Gly Asp Thr Arg Phe Asp Arg Ile Leu Leu Asp Ala Pro Cys 325 330 Ser Ala Thr Gly Val Ile Arg Arg His Pro Asp Ile Lys Trp Leu Arg 340 345 350 Arg Asp Arg Asp Ile Lys Glu Leu Ala Gln Leu Gln Ser Glu Ile Leu 355 360 Asp Ala Ile Trp Pro His Leu Lys Pro Gly Gly Thr Leu Val Tyr Ala 375 380 Thr Cys Ser Val Leu Pro Glu Glu Asn Ser Gln Gln Ile Ala Ala Phe 390 395 Leu Lys Arg Thr Pro Asp Ala Thr Leu His Asp Thr Gly Thr Pro Glu 405 410 His Pro Gly Leu Gln Asn Leu Pro Gly Ala Glu Glu Gly Asp Gly Phe 420 425 Phe Tyr Ala Lys Leu Ile Lys Glu 435 <211> 470

<210> 6780

<212> PRT

<213> Enterobacter cloacae

<400> 6780

Ser Lys Ser Asp Val Glu Asn Arg Ser Arg Lys Met Lys Ile Ile Ile 10 Leu Gly Ala Gly Gln Val Gly Gly Thr Leu Ala Glu Asn Leu Val Gly Glu Asn Asn Asp Ile Thr Ile Val Asp Thr Asn Gly Asp Arg Leu Arg Val Leu Gln Asp Lys Phe Asp Leu Arg Val Val Gln Gly His Gly Ser His Pro Arg Val Leu Arg Glu Ala Gly Ala Asp Asp Ala Asp Met Leu 75 Val Ala Val Thr Ser Ser Asp Glu Thr Asn Met Val Ala Cys Gln Val 85 90 Ala Tyr Ser Leu Phe Asn Thr Pro Asn Arg Ile Ala Arg Ile Arg Ser 105 110 Pro Asp Tyr Val Arg Asp Ala Glu Lys Leu Phe Asn Ser Glu Ala Val 115 120 125 Pro Ile Asp His Leu Ile Ala Pro Glu Gln Leu Val Ile Asp Ser Ile 135 140 Tyr Arg Leu Ile Glu Tyr Pro Gly Ala Leu Gln Val Val Asn Phe Ala 150 155 Glu Gly Lys Val Ser Leu Ala Val Val Lys Ala Tyr Tyr Gly Gly Pro 170 Leu Ile Gly Asn Ala Leu Ser Thr Met Arg Glu His Met Pro His Ile

Asp Thr Arg Val Ala Ala Ile Phe Arg His Asp Arg Pro Ile Arg Pro 200 Gln Gly Ser Thr Ile Val Glu Ala Gly Asp Glu Val Phe Phe Ile Ala 215 220 Ala Ser Gln His Ile Arg Ala Val Met Ser Glu Leu Gln Arg Leu Glu 235 230 Lys Pro Tyr Lys Arg Ile Met Leu Val Gly Gly Asn Ile Gly Ala 245 250 Gly Leu Ala Arg Arg Leu Glu Lys Asp Tyr Ser Val Lys Leu Ile Glu 260 265 Arg Asp Gln Gln Arg Ala Ser Glu Leu Ala Glu Lys Leu Gln Asn Thr 280 Ile Val Phe Tyr Gly Asp Ala Ser Asp Gln Glu Leu Leu Ala Glu Glu 295 300 His Ile Asp Gln Val Asp Leu Phe Ile Ala Val Thr Asn Asp Asp Glu 310 315 Ala Asn Ile Met Ser Ala Met Leu Ala Lys Arg Met Gly Ala Lys Lys 325 330 Val Met Val Leu Ile Gln Arg Lys Ala Tyr Val Asp Leu Val Gln Gly 345 Ser Val Ile Asp Ile Ala Ile Ser Pro Gln Gln Ala Thr Ile Ser Ala 360 Leu Leu Ser His Val Arg Lys Ala Asp Ile Val Gly Val Ser Ser Leu 375 Arg Arg Gly Val Ala Glu Ala Ile Glu Ala Val Ala His Gly Asp Glu 390 395 Thr Thr Ser Arg Val Val Gly Arg Ala Ile Asp Glu Ile Lys Leu Pro 410 Pro Gly Thr Ile Ile Gly Ala Val Val Arg Gly Asn Asp Val Met Ile 425 Ala Asn Asp Asn Leu Arg Ile Glu Gln Gly Asp His Val Ile Met Phe 440 Leu Thr Asp Lys Lys Phe Ile Thr Asp Val Glu Arg Leu Phe Gln Pro 455 Ser Pro Phe Phe Leu

<210> 6781 <211> 176

<212> PRT

<213> Enterobacter cloacae

# <400> 6781

Thr Arg Leu Trp Lys Phe Met Ala Val Leu Gln Val Leu His Ile Pro 10 Asp Glu Arg Leu Arg Ile Val Ala Glu Pro Val Lys Glu Val Asn Ala 25 Glu Ile Gln Arg Ile Val Asp Asp Met Phe Asp Thr Met Tyr Ala Glu 40 Glu Gly Ile Gly Leu Ala Ala Thr Gln Val Asp Ile His Lys Arg Ile 55 Ile Val Ile Asp Val Ser Glu Asn Arg Asp Glu Arg Leu Val Leu Ile Asn Pro Glu Leu Leu Glu Lys Ser Gly Glu Thr Gly Ile Glu Gly Gly 90 Cys Leu Ser Ile Pro Glu Gln Arg Ala Leu Val Pro Arg Ala Glu Lys 105 Val Lys Ile Arg Ala Leu Asp Arg Asp Gly Asn Pro Phe Glu Leu Glu 120 125 Ala Asp Asp Leu Leu Ala Ile Cys Ile Gln His Glu Met Asp His Leu

 Val Gly Lys Leu
 Phe Ile Asp Tyr Leu
 Ser Pro Leu Lys Gln Gln Arg

 145
 150
 155
 160

 Ile Arg Gln Lys Val Glu Lys Leu Asp Arg Leu Arg Ser Arg Ala
 165
 170
 175

<210> 6782 <211> 324

<212> PRT <213> Enterobacter cloacae

<400> 6782

Arg Pro Pro Asp Thr Arg Asn Asn Val Ser Thr Ser Leu Arg Ile Ile Phe Ala Gly Thr Pro Asp Phe Ala Ala Arg His Leu Asp Ala Leu Leu 25 Ser Ser Gly His Gln Ile Val Gly Val Phe Thr Gln Pro Asp Arg Pro 40 Ala Gly Arg Gly Lys Lys Leu Met Pro Gly Pro Val Lys Val Leu Ala 55 Glu Thr His Gly Leu Pro Val Phe Gln Pro Ala Ser Leu Arg Pro Glu 75 Glu Asn Gln Gln Leu Val Ala Asp Leu Asn Ala Asp Val Met Val Val 85 90 Val Ala Tyr Gly Leu Ile Leu Pro Lys Ala Val Leu Asp Met Pro Arg 105 100 Leu Gly Cys Val Asn Val His Gly Ser Leu Leu Pro Arg Trp Arg Gly 120 125 115 Ala Ala Pro Ile Gln Arg Ala Leu Trp Ala Gly Asp Ala Glu Thr Gly 135 140 Val Thr Ile Met Lys Met Asp Val Gly Leu Asp Thr Gly Asp Met Leu 155 150 Tyr Lys Leu Ala Cys Pro Ile Thr Ala Glu Asp Thr Ser Ala Thr Leu 165 170 Tyr Asp Lys Leu Ala Asp Leu Gly Pro Gln Gly Leu Ile Glu Thr Leu 180 185 190 Gln Gln Leu Ala Asp Asn Thr Ala Thr Pro Glu Val Gln Asp Glu Ala 200 205 Gln Val Thr Tyr Ala Glu Lys Leu Ser Lys Glu Glu Ala Arg Ile Asp 215 220 Trp Ser Leu Ser Ala Ala Gln Leu Glu Arg Cys Ile Arg Ala Phe Asn 230 235 Pro Trp Pro Met Ser Trp Leu Met Ile Asp Glu Gln Pro Val Lys Val 250 245 Trp Lys Ala Ser Val Ile Asn Gly Asn Thr Ser Ala Glu Pro Gly Thr 265 Ile Ile Asp Ala Ser Lys Asn Gly Ile Gln Val Ala Thr Gly Glu Gly 275 280 Ile Leu Asn Leu Glu Ser Leu Gln Pro Ala Gly Lys Lys Ala Met Ser 295 300 Ala Gln Asp Leu Leu Asn Ser Arg Arg Glu Trp Phe Ile Pro Gly Asn 310 315

<210> 6783

Arg Leu Ala

<211> 153

<212> PRT

<213> Enterobacter cloacae

<400> 6783

Ser Phe Val Lys Leu Ile Gly Val Ser Trp His Lys Glu Asn Ile Met

10 Ser Phe Ile Lys Glu Phe Arg Glu Phe Ala Met Arg Gly Asn Val Val 25 Asp Leu Ala Val Gly Val Ile Ile Gly Ala Ala Phe Gly Lys Ile Val 40 Ser Ser Leu Val Ala Asp Ile Ile Met Pro Pro Leu Gly Leu Leu Ile Gly Gly Ile Asp Phe Lys Gln Phe Ala Phe Thr Leu Arg Glu Ala Gln 70 75 Gly Asp Ile Pro Ala Val Val Met His Tyr Gly Val Phe Ile Gln Asn 90 Val Phe Asp Phe Val Ile Val Ala Phe Ala Ile Phe Met Ala Ile Lys 105 Leu Ile Asn Arg Leu Asn Arg Lys Lys Glu Glu Pro Ala Ala Pro 120 Pro Ala Pro Thr Lys Glu Glu Val Leu Leu Thr Glu Ile Arg Asp Leu 135 Leu Lys Glu Gln Asn Asn Arg Val 150 <210> 6784 <211> 136 <212> PRT <213> Enterobacter cloacae <400> 6784 Gln Glu Val Ile Met Ala Gln Ile Pro Ala Gly Ala Asp Cys Pro Gly Gln Leu Ser Arg Lys Gln Thr Gly Asp Ala Trp Glu Leu Lys Ala Arg Arg Trp Leu Glu Gly Lys Gly Leu Arg Phe Val Ala Ala Asn Val Arg Gly Arg Gly Glu Ile Asp Leu Ile Met Lys Asp Gly Gln Thr Ile Val Phe Val Glu Val Arg Tyr Arg Gln Ser Ser Arg Phe Gly Gly Ala Ala Ala Ser Val Thr Leu Ala Lys Gln Gln Lys Leu Leu Gln Thr Ala His Leu Trp Leu Ala Arg His Asn Gly Ser Phe Asp Thr Val Asp Cys 105 Arg Phe Asp Val Val Ala Phe Thr Gly Asn Ala Ile Asp Trp Leu Lys 125 Asn Ala Phe Gly Glu Asp Ala 130 <210> 6785 <211> 200 <212> PRT <213> Enterobacter cloacae <400> 6785 Arg Asp Thr Val Leu Glu Arg Ile Lys Val Cys Phe Thr Glu Ser Ile 10 Gln Thr Gln Ile Ala Ala Ala Glu Ala Leu Pro Asp Ala Ile Ser Arg 25 Ala Ala Met Thr Leu Val Gln Ser Leu Leu Asn Gly Asn Lys Ile Leu 40 Cys Cys Gly Asn Gly Thr Ser Ala Ala Asn Ala Gln His Phe Ala Ala 55 Ser Met Ile Asn Arg Phe Glu Thr Glu Arg Pro Ser Leu Pro Ala Ile

2893 Ala Leu Asn Thr Asp Asn Val Val Leu Thr Ala Ile Ala Asn Asp Arg 85 90 Leu His Asp Glu Ile Tyr Ala Lys Gln Val Arg Ala Leu Gly His Ala 105 Gly Asp Val Leu Leu Ala Ile Ser Thr Arg Gly Asn Ser Arg Asp Ile 120 125 Val Lys Ala Val Glu Ala Ala Val Thr Arg Asp Met Thr Ile Val Ala 135 Leu Thr Gly Tyr Asp Gly Gly Glu Leu Ala Gly Leu Leu Gly Pro Gln 150 155 Asp Val Glu Ile Arg Ile Pro Ser His Arg Ser Ala Arg Ile Gln Glu 165 170 Met His Met Leu Thr Val Asn Cys Leu Cys Asp Leu Ile Asp Asn Thr 185 180 Leu Phe Pro His Gln Asp Asp 200 195 <210> 6786 <211> 195 <212> PRT <213> Enterobacter cloacae

<400> 6786

Gly Val Leu Met Lys Val Leu Ser Ala Leu Ala Val Val Met Ser Ala 10 Leu Leu Leu Gln Gly Cys Ile Ala Ala Ala Val Val Gly Thr Ala Ala 25 Val Gly Thr Lys Ala Ala Thr Asp Pro Arg Thr Val Gly Thr Gln Val 40 45 Asp Asp Gly Thr Leu Glu Leu Arg Val Asn Ser Ala Leu Ser Lys Asp 55 Glu Gln Ile Lys Lys Glu Ala Arg Ile Asn Val Thr Ala Tyr Gln Gly 70 75 Lys Val Leu Leu Ala Gly Gln Ala Pro Asn Pro Glu Leu Ala Ser Arg 90 Ala Lys Gln Ile Ala Met Gly Val Glu Gly Thr Ala Glu Val Tyr Asn 105 110 Glu Ile Arg Gln Gly Gln Pro Ile Gly Leu Gly Thr Ala Ser Ser Asp 120 Thr Trp Ile Thr Thr Lys Val Arg Ser Gln Leu Leu Gly Thr Asp Gln Val Lys Ser Ser Asn Val Lys Val Thr Thr Glu Asn Gly Glu Val Phe 155 150 Leu Leu Gly Leu Val Thr Glu Arg Glu Gly Lys Ala Ala Ala Asp Ile 170 Ala Ser Arg Val Ser Gly Val Lys His Val Thr Thr Ala Phe Thr Tyr 185

Ile Lys 195

<210> 6787 <211> 391 <212> PRT

<213> Enterobacter cloacae

40 45 Pro Ile Val Thr Ala Leu Thr Leu Ser Leu Val Gly Leu Phe Ile Pro 55 60 Leu Leu Trp Glu Tyr Val Ala Met Gly Ile Ala Gly Ile Gly His Ile 75 70 Ile Gln Ser Thr Ser Val Phe Gly Pro Phe Leu Tyr Gly Val Gly Val 90 85 Leu Leu Leu Lys Pro Phe Gly Leu His His Ile Leu Leu Ala Met Val 105 Arg Phe Thr Pro Ala Gly Gly Ile Glu Met Val Asn Gly Gln Glu Val 120 125 Ala Gly Ala Leu Asn Ile Phe Tyr Ala Glu Leu Lys Ala Gly Leu Pro 135 140 Phe Ser Pro His Val Thr Ala Phe Leu Ser Gln Gly Phe Met Pro Thr 150 155 Phe Ile Phe Gly Leu Pro Ala Val Ala Tyr Ala Ile Tyr Arg Thr Ala 165 170 Arg Pro Glu Asn Arg Pro Val Ile Lys Gly Leu Leu Ser Gly Val 185 Leu Val Ser Val Val Thr Gly Ile Ser Glu Pro Ile Glu Phe Leu Phe 200 205 Leu Phe Ile Ala Pro Val Leu Tyr Ala Phe His Ile Val Met Ser Gly 215 220 Leu Ala Leu Met Val Met Ala Leu Leu Gly Val Thr Ile Gly Asn Thr 235 230 Asp Gly Gly Ile Leu Asp Leu Leu Ile Phe Gly Val Met Gln Gly Met 250 245 Ser Thr Lys Trp Tyr Leu Leu Phe Pro Val Gly Met Ala Trp Phe Ala 270 260 265 Ile Tyr Phe Phe Val Phe Arg Trp Tyr Ile Leu Arg His Asp Ile Lys 280 285 Thr Pro Gly Arg Glu Val Asp Ala Gln Gly Ala Leu Gln Ala Val Glu 295 300 Ala Asn Thr Arg Ala Arg Gly Lys Ser Lys Tyr Asp His Gly Leu Ile 310 315 Leu Arg Ala Leu Gly Gly Lys Glu Asn Ile Glu Ser Leu Asp Asn Cys 325 330 Ile Thr Arg Leu Arg Leu Val Val Lys Asp Met Gly Leu Ile Asp Gln 345 Gln Ala Leu Lys Ala Ala Gly Ala Leu Ser Val Val Leu Asp Ala 360 His Ser Val Gln Val Ile Ile Gly Pro Gln Val Gln Ser Val Lys Ser 375 Gly Ile Glu Ala Leu Ile <210> 6788 <211> 395

<212> PRT

<213> Enterobacter cloacae

<400> 6788

Gln Gly Asp Val Val Phe Asp Phe Asp Arg Ile Ile Glu Arg Lys Ser 10 Asp Lys Cys Arg Lys Trp Asp His Ala Phe Val Cys Ser Arg Phe Gly 25 Asp Val Pro Glu Gly Phe Ile Pro Leu Trp Ile Ala Asp Met Asp Phe 40 45 Thr Ser Pro Pro Ala Val Ile Glu Gly Phe Gln Arg Ile Val Glu His 55 Gly Thr Phe Gly Tyr Thr Trp Cys Phe Asp Glu Phe Tyr Asp Ala Val

70 75 Ile Ala Phe Gln Arg Thr Arg His Gln Val Glu Val His Lys Ser Trp 85 90 Ile Thr Leu Thr Tyr Gly Thr Val Ser Thr Leu His Tyr Thr Val Gln 105 Ala Phe Cys Lys Pro Gly Asp Cys Val Met Met Asn Thr Pro Val Tyr 120 125 Asp Pro Phe Ala Met Ala Thr Gln Arg Gln Gly Val Arg Val Leu Ala 135 140 Asn Pro Leu Ser Val Lys Glu Asn Arg Tyr His Leu Asp Phe Asn Leu 150 Ile Glu Val Gln Leu Lys Thr His Arg Pro Lys Leu Trp Phe Phe Cys 170 165 Ser Pro His Asn Pro Ser Gly Arg Ile Trp Arg Ala Asp Glu Ile Arg 185 Gln Val Ser Asp Leu Cys Lys Arg Tyr Gly Thr Ile Leu Val Val Asp 200 205 Glu Val His Ala Glu His Ile Leu Asp Gly Thr Phe Val Ser Cys Leu 220 215 Thr Ser Gly Cys Ala Ala Gln Asp Asn Leu Ile Val Leu Thr Ser Pro 230 235 Asn Lys Ala Phe Asn Leu Gly Gly Leu Lys Thr Ser Tyr Ser Ile Ile 245 250 Pro Asp Asp Ser Leu Arg Gln Arg Phe Arg Gln Gln Leu Glu Lys Asn 265 270 Ser Ile Thr Ser Pro Asn Ile Phe Gly Val Trp Gly Ile Ile Leu Ala 280 285 Tyr Gln Gln Gly Leu Pro Trp Leu Asp Ala Leu Asn Gly Tyr Leu Arg 295 300 Gly Asn Ala Arg Tyr Leu Ala Asp Ala Ile Gln Thr His Phe Pro Ala 315 310 Trp Lys Met Met Asn Pro Glu Ser Ser Tyr Leu Ala Trp Ile Asp Val 330 Ser Ala Asp Asp Arg Ser Ala Thr Ala Leu Thr Gln His Phe Ala Lys Gln Ala Gly Val Val Ile Glu Asp Gly Ser His Tyr Val Gln Asn Gly 355 360 Glu Asn Tyr Leu Arg Ile Asn Phe Gly Thr Gln Arg Tyr Trp Leu Glu 375 Gln Ser Ile Asn Arg Met Leu Lys His Tyr 390

<210> 6789

<211> 723

<212> PRT

<213> Enterobacter cloacae

### <400> 6789

100 105 110 Leu Leu Ser Ala Glu Leu Lys Val Ala Gln Lys Asp Tyr Asp Gly Ala 120 125 Lys Lys Ile Leu Gly Thr Ile Asp Leu Ser Thr Leu Asp Lys Asn Gln 135 140 Gln Thr Arg Phe Trp Gln Ala Gly Ile Thr Ala Glu Gln Gly Arg Thr 150 155 Ser Leu Thr Leu Leu Arg Ala Leu Ile Ala Gln Glu Pro Leu Leu Ala 165 170 Gly Ala Asp Lys Gln Lys Asn Ile Asp Ala Thr Trp Gln Ala Leu Ala 185 Ser Met Thr Gln Asp Gln Ala Lys Ala Leu Val Ile Asn Ala Asp Glu 200 205 Asn Val Leu Gln Gly Trp Leu Asp Leu Gln Gln Met Trp Phe Asn Asn 215 Arg Ser Asp Pro Asn Met Leu Lys Ala Gly Ile Thr Asp Trp Gln Lys 230 235 Arg Tyr Pro Gln Asn Pro Gly Ala Lys Met Leu Pro Thr Gln Leu Val 250 245 Asn Val Gln Asn Phe Lys Pro Ala Ser Thr Ser Lys Ile Ala Leu Leu 260 265 Leu Pro Leu Asn Gly Gln Ala Ala Val Phe Gly Arg Ala Ile Gln Gln 280 285 Gly Phe Glu Ala Ala Lys Asn Gly Thr Thr Ala Val Ser Gly Ser Ala 295 300 Val Pro Thr Gln Ala Ala Gln Ala Ala Asn Val Asn Asp Val Val Ser 310 315 Pro Ser Ala Ala Glu Thr Ser Asp Leu Thr Thr Ala Gln Thr Pro Ala 330 325 Gln Gly Thr Met Gln Asn Pro Val Thr Ala Pro Thr Thr Gln Pro Ala 340 345 Pro Pro Ala Pro Ala Ala Thr Gln Ala Pro Ala Glu Thr Pro Ala Pro 355 360 Ala Thr Ala Glu Gln Pro Gln Pro Gln Thr Glu Gln Pro Glu Gln Gln 375 380 Pro Ala Thr Gln Pro Gln Ala Val Ala Thr Thr Ser Ala Asn Pro Gly 390 395 Ala Glu Leu Lys Ile Tyr Asp Thr Ser Ala Gln Pro Leu Asp Gln Val 405 410 Leu Ala Gln Val Gln Gln Asp Gly Ala Ser Ile Val Val Gly Pro Leu 420 425 430 Leu Lys Asn Asn Val Glu Ala Leu Met Lys Ser Asn Thr Thr Leu Asn 440 Val Leu Ala Leu Asn Gln Pro Glu Gln Val Gln Asn Arg Ala Asn Ile Cys Tyr Phe Ala Leu Ser Pro Glu Asp Glu Ala Arg Asp Ala Ala Arg 470 475 His Ile His Glu Gln Gly Lys Gln Ala Pro Leu Leu Ile Pro Arg 490 Ser Thr Leu Gly Asp Arg Val Ala Asn Ala Phe Ala Gln Glu Trp Gln 505 Thr Leu Gly Gly Gly Val Val Leu Gln Gln Lys Phe Gly Ser Ala Ala 525 520 Glu Leu Arg Ala Gly Val Asn Gly Gly Ala Gly Ile Ala Leu Asn Gly 535 540 Ser Pro Val Ser Ala Ser Leu Pro Gln Gln Ser Val Thr Ile Gly 550 555 Gly Leu Thr Ile Pro Ala Pro Pro Thr Asp Ala Gln Ile Ser Gly Gly 565 570 575 Gly Lys Val Asp Ser Ala Tyr Ile Val Ala Thr Pro Glu Glu Ile Ala 580 585

Phe Ile Lys Pro Met Ile Ala Met Arg Asn Gly Ser Gln Ser Gly Ala 600 605 Thr Leu Tyr Ala Ser Ser Arg Ser Ala Gln Gly Thr Ala Gly Pro Asp 615 620 Phe Arg Leu Glu Met Glu Gly Leu Gln Tyr Ser Glu Ile Pro Met Leu 635 630 Ala Gly Ser Asn Pro Gln Leu Met Gln Gln Ala Leu Gly Ala Val Arg 645 650 Asn Asp Tyr Ser Leu Ala Arg Leu Tyr Ala Met Gly Val Asp Ala Trp 660 665 Ala Leu Ala Asn His Phe Thr Gln Met Arg Gln Val Pro Gly Phe Glu 680 675 Leu Asn Gly Asn Thr Gly Asp Leu Thr Ala Asp Gln Asp Cys Val Ile 700 695 Asn Arg Lys Leu Ser Trp Leu Lys Tyr Gln Gln Gly Gln Ile Val Pro 710 715 705 Ala Ser

<210> 6790 <211> 295 <212> PRT

<213> Enterobacter cloacae

<400> 6790 Ile Gly Asn Thr Asp Glu Thr Met Lys Gln His Glu Thr Ala Asp Asn 10 Ser Gln Gly Gln Leu Tyr Ile Val Pro Thr Pro Ile Gly Asn Leu Ser Asp Ile Thr Gln Arg Ala Leu Thr Val Leu Gln Ala Val Asp Leu Ile Ala Ala Glu Asp Thr Arg His Thr Gly Leu Leu Gln His Phe Ala 55 Ile Asn Ala Arg Leu Phe Ala Leu His Asp His Asn Glu Gln Gln Lys 70 Ala Glu Thr Leu Val Ala Lys Leu Lys Glu Gly Gln Asn Ile Ala Leu 90 Val Ser Asp Ala Gly Thr Pro Leu Ile Asn Asp Pro Gly Tyr His Leu 105 Val Arg Thr Cys Arg Glu Ala Gly Ile Arg Val Val Pro Leu Pro Gly 120 Pro Cys Ala Ala Ile Ala Ala Leu Ser Ala Ala Gly Leu Pro Ser Asp 135 140 Arg Phe Cys Tyr Glu Gly Phe Leu Pro Ala Lys Ser Lys Gly Arg Arg 150 155 Asp Val Leu Glu Asp Leu Glu Ala Glu Pro Arg Thr Leu Ile Phe Tyr 170 165 Glu Ser Thr His Arg Leu Leu Glu Ser Leu Glu Asp Met Val Thr Val 190 185 Trp Gly Glu Gly Arg Tyr Val Val Leu Ala Arg Glu Leu Thr Lys Thr 200 Trp Glu Thr Ile His Gly Ala Pro Val Gly Glu Leu Leu Ala Trp Val 215 220 Lys Glu Asp Glu Asn Arg Arg Lys Gly Glu Met Val Leu Ile Val Glu 235 230 Gly His Lys Ala Gln Glu Asp Ala Leu Pro Ala Asp Ala Leu Arg Thr 245 250 Leu Ala Leu Leu Gln Ala Glu Leu Pro Leu Lys Lys Ala Ala Ala Leu 265 270 Ala Ala Glu Ile His Gly Val Lys Lys Asn Ala Leu Tyr Lys Tyr Ala 280

Leu Glu Gln Gln Gly Glu 290 295

<210> 6791

<211> 113

<212> PRT

<213> Enterobacter cloacae

<400> 6791

Lys Tyr Ile Leu Ala Val Leu Val Leu Gly Ala Ala Arg Val Trp Leu
1 5 10 15

Phe Pro His Ala Asp Gly Ala Ile Asp Asn Thr Leu Met Trp Val Ile
20 25 30

Ala Met Ala Val Ala Gly Cys Leu Phe Val Ile Pro Thr Ala Ala Glu
35 40

Ile Pro Ile Ile Gln Thr Met Met Ala Gly Met Gly Thr Ala Pro
50 55 60

Ala Leu Ala Leu Leu Ile Thr Leu Pro Ala Val Ser Leu Pro Ser Leu 65 70 75 80

Ile Met Leu Arg Lys Ser Phe Pro Ala Lys Ala Leu Trp Leu Thr Ala 85 90 95

Gly Leu Val Ala Leu Ser Gly Val Ile Val Gly Ser Met Ala Leu Val 100 105 110

<210> 6792

<211> 97

<212> PRT

<213> Enterobacter cloacae

<400> 6792

Gly Glu Ala Val Leu His Pro Ala Val Lys Thr Trp Val Val Glu Gly
1 10 15

Ser Lys Lys Arg Leu Gln Ala Phe Glu Gly Val Val Ile Ala Ile Arg 20 25 30

Asn Arg Gly Leu His Ser Ala Phe Thr Val Arg Lys Ile Ser Asn Gly 35 40 45

Glu Gly Val Glu Arg Val Phe Gln Thr His Ser Pro Val Val Asp Ser 50 60

Ile Ala Val Lys Arg Arg Gly Ala Val Arg Lys Ala Lys Leu Tyr Tyr 65 70 75 80

Leu Arg Glu Arg Thr Gly Lys Ser Ala Arg Ile Lys Glu Arg Leu Asn
85 90 95

<210> 6793

<211> 332

<212> PRT

<213> Enterobacter cloacae

<400> 6793

Arg Val Leu Val Asn Gly Lys Ile Trp Asp Lys Pro Lys Glu Lys Val

```
Phe Gly Gly Glu Ala Val Ala Ile Asn Ala Glu Ile Glu Glu Ile
                    70
                                        75
Arg Phe Glu Pro Gln Asp Ile Pro Leu Asp Ile Val Tyr Glu Asp Asp
                85
                                    90
Asp Ile Leu Val Ile Asn Lys Pro Arg Asp Phe Val Val His Pro Gly
            100
                                105
Ala Gly Asn Pro Asp Gly Thr Val Leu Asn Ala Leu Leu His Tyr Tyr
                            120
Pro Pro Ile Ala Asp Val Pro Arg Ala Gly Ile Val His Arg Leu Asp
                        135
                                            140
Lys Asp Thr Thr Gly Leu Met Val Val Ala Lys Thr Ile Pro Ala Gln
                    150
                                        155
Thr Arg Leu Val Glu Ser Leu Gln Leu Arg Glu Ile Thr Arg Glu Tyr
                165
                                    170
Glu Ala Val Ala Ile Gly His Met Thr Ser Gly Gly Thr Val Glu Glu
            180
                                185
                                                    190
Pro Ile Ser Arg His Pro Thr Lys Arg Thr His Met Ser Val His Pro
                            200
Met Gly Lys Pro Ala Val Thr His Tyr Arg Ile Met Glu His Phe Arg
                        215
                                            220
Ile His Thr Arg Leu Arg Leu Glu Thr Gly Arg Thr His Gln
                    230
                                        235
Ile Arg Val His Met Ala His Ile Thr His Pro Leu Val Gly Asp Pro
                                    250
                245
Val Tyr Gly Gly Arg Pro Arg Pro Pro Lys Gly Ala Ser Asp Glu Phe
                                                    270
            260
                                265
Ile Ser Val Leu Arg Lys Phe Asp Arg Gln Ala Leu His Ala Thr Met
        275
                            280
                                                285
Leu Arg Leu Tyr His Pro Ile Thr Gly Ile Gln Met Glu Trp His Ala
                        295
                                            300
    290
Pro Ile Pro Gln Asp Met Val Glu Leu Ile Asp Ala Met Arg Ala Asp
                    310
                                        315
Phe Glu Glu His Lys Asp His Val Asp Trp Leu
                325
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<210> 6794
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### <400> 6794

Tyr Arg Cys Val Thr Ser Ser Arg Lys Thr Thr Ile Ala Asn Glu Phe 10 Asp Arg Ile Ala Ile Met Gln Lys Asp Ala Leu Asn Asn Val His Ile Thr Asp Glu Gln Val Leu Ile Thr Pro Asp Gln Leu Lys Ala Glu Phe Pro Leu Ser Val Ala Gln Glu Ala Gln Ile Glu His Ser Arg Gln Thr Ile Ser Asp Ile Ile Ala Gly Arg Asp Pro Arg Leu Leu Val Val Cys 75 Gly Pro Cys Ser Ile His Asp Pro Glu Thr Ala Ile Glu Tyr Ala Arg 85 90 Arg Phe Lys Ala Leu Ala Glu Glu Val Ser Asp Ser Leu Tyr Leu Val 100 105 110 Met Arg Val Tyr Phe Glu Lys Pro Arg Thr Thr Val Gly Trp Lys Gly 120 125 Leu Ile Asn Asp Pro His Met Asp Gly Ser Phe Asp Val Glu Ala Gly 135 140 Leu Lys Ile Ala Arg Arg Leu Leu Val Glu Leu Val Ser Met Gly Leu 150 155

<sup>&</sup>lt;211> 378

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

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Pro Leu Ala Thr Glu Ala Leu Asp Pro Asn Ser Pro Gln Tyr Leu Gly
               165
                                   170
Asp Leu Phe Ser Trp Ser Ala Ile Gly Ala Arg Thr Thr Glu Ser Gln
                               185
           180
Thr His Arg Glu Met Ala Ser Gly Leu Ser Met Pro Val Gly Phe Lys
                           200
       195
                                               205
Asn Gly Thr Asp Gly Ser Leu Ala Thr Ala Ile Asn Ala Met Arg Ala
                        215
                                           220
Ala Ala Met Pro His Arg Phe Val Gly Ile Asn Gln Ala Gly Gln Val
                    230
                                        235
Cys Leu Leu Gln Thr Gln Gly Asn Pro Asp Gly His Val Ile Leu Arg
                                    250
Gly Gly Lys Ala Pro Asn Tyr Ser Pro Ala Asp Val Ala Gln Cys Glu
            260
                                265
Lys Glu Met Glu Gln Ala Gly Leu Arg Pro Ala Leu Met Val Asp Cys
                            280
                                                285
Ser His Gly Asn Ser Asn Lys Asp Tyr Arg Arg Gln Pro Ala Val Ala
                        295
                                            300
Glu Ser Val Ile Ala Gln Ile Lys Asp Gly Asn Arg Ser Ile Ile Gly
                    310
                                        315
Leu Met Ile Glu Ser Tyr Ile His Glu Gly Asn Gln Ser Ser Glu Gln
                325
                                    330
Pro Arg Ile Ala Met Lys Pro Gly Val Ser Val Thr Asp Ala Cys Ile
                                345
                                                    350
            340
Ser Trp Glu Thr Thr Asp Ala Leu Leu Arg Glu Ile His Lys Asp Leu
                            360
                                                365
Asn Gly Gln Leu Ala Thr Arg Leu Ala
   370
                        375
<210> 6795
<211> 129
<212> PRT
<213> Enterobacter cloacae
<400> 6795
Pro Ile Thr Ala Ser Trp Asn Ile Ser Val Phe Ile Pro Ala Cys Val
                                    10
                                                        15
Cys Ala Trp Lys Pro Gly Val Leu Thr Arg Ser Ala Cys Thr Trp Arg
Ile Leu Pro Ile Arg Trp Trp Val Thr Arg Phe Thr Ala Val Val Arg
                            40
Val His Gln Arg Ala His Arg Met Asn Ser Ser Pro Cys Cys Val Asn
                        55
Ser Ile Ala Arg Arg Cys Met Arg Arg Cys Cys Val Phe Thr Thr Gln
                    70
                                        75
Ser Pro Glu Phe Arg Trp Asn Gly Met Arg Arg Ser His Arg Ile Trp
                8.5
                                    90
Trp Asn Leu Ser Thr Arg Cys Ala Gln Ile Ser Lys Asn Ile Arg Ile
                                                    110
            100
                                105
Thr Trp Thr Gly Tyr Asp Gln Thr Asp Cys Pro Gly Val Ala Thr Ala
                            120
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<210> 6796
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<sup>&</sup>lt;211> 518

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

10 . Tyr Glu Leu His His His Val Gln Ile Thr Asp Pro Ala Ile Val Ala 20 25 Ala Ala Thr Leu Ser His Arg Tyr Ile Ala Asp Arg Gln Leu Pro Asp 40 45 Lys Ala Ile Asp Leu Ile Asp Glu Ala Ala Ser Ser Ile Arg Met Gln 55 60 Ile Asp Ser Lys Pro Glu Glu Leu Asp Arg Leu Asp Arg Ile Ile 70 75 Gln Leu Lys Leu Glu Gln Gln Ala Leu Asn Lys Glu Ser Asp Glu Ala 85 90 Ser Lys Lys Arg Leu Asp Met Leu Asn Glu Glu Leu Asp Glu Lys Glu 105 Arg Gln Tyr Ser Glu Leu Glu Glu Glu Trp Lys Ala Glu Lys Ala Ser 120 Leu Ser Gly Thr Gln Thr Ile Lys Ala Glu Leu Glu Gln Ala Lys Ile 135 Ala Ile Glu Gln Ala Arg Arg Val Gly Asp Leu Ala Arg Met Ser Glu 150 155 Leu Gln Tyr Gly Lys Ile Pro Glu Leu Glu Lys Gln Leu Glu Ile Ala 165 170 Thr Gln Ser Glu Gly Lys Thr Met Arg Leu Leu Arg Asn Lys Val Thr 185 180 Asp Ala Glu Ile Ala Glu Val Leu Ala Arg Trp Thr Gly Ile Pro Val 200 205 195 Ala Arg Met Met Glu Ser Glu Arg Glu Lys Leu Leu Arg Met Glu Gln 215 220 Asp Leu His Gln Arg Val Ile Gly Gln Asn Glu Ala Val Glu Ala Val 230 235 Ser Asn Ala Ile Arg Arg Ser Arg Ala Gly Leu Ser Asp Pro Asn Arg 245 250 Pro Ile Gly Ser Phe Leu Phe Leu Gly Pro Thr Gly Val Gly Lys Thr 260 265 Glu Leu Cys Lys Ala Leu Ala Asn Phe Met Phe Asp Ser Asp Asp Ala 275 280 Met Val Arg Ile Asp Met Ser Glu Phe Met Glu Lys His Ala Val Ser 295 300 Arg Leu Val Gly Ala Pro Pro Gly Tyr Val Gly Tyr Glu Glu Gly Gly 310 315 Tyr Leu Thr Glu Ala Val Arg Arg Pro Tyr Ser Val Ile Leu Leu 330 Asp Glu Val Glu Lys Ala His Pro Asp Val Phe Asn Ile Leu Leu Gln 345 Val Leu Asp Asp Gly Arg Leu Thr Asp Gly Gln Gly Arg Thr Val Asp Phe Arg Asn Thr Val Val Ile Met Thr Ser Asn Leu Gly Ser Asp Leu 375 Ile Gln Glu Arg Phe Gly Glu Leu Asp Tyr Ser His Met Lys Asp Leu 390 395 Val Leu Gly Val Val Ser Gln Asn Phe Arg Pro Glu Phe Ile Asn Arg 410 405 Ile Asp Glu Val Val Phe His Pro Leu Gly Glu Lys His Ile Ala 420 425 Ser Ile Ala Gln Ile Gln Leu Gln Arg Leu Tyr Lys Arg Leu Glu Glu 445 440 Arg Gly Tyr Glu Ile His Ile Ser Asp Asp Ala Leu Lys Leu Leu Ser 455 460 Glu Asn Gly Tyr Asp Pro Val Tyr Gly Ala Arg Pro Leu Lys Arg Ala 470 475 Ile Gln Gln Gln Ile Glu Asn Pro Leu Ala Gln Gln Ile Leu Ser Gly 490

Glu Leu Val Pro Gly Lys Val Ile Arg Leu Glu Ala Asn Glu Asp Arg
500 505 510

Ile Val Ala Val Gln 515

<210> 6797

<211> 533

<212> PRT <213> Enterobacter cloacae

<400> 6797

 Ser
 Met
 Arg
 Leu
 Leu
 Arg
 Ala
 Val
 Ser
 Ala
 Cys
 Thr
 Gly
 Arg
 Asp
 Ala

 1

50 55 60
Gln Asn His Ser Leu Phe Ala Leu Lys Arg Lys Ser Met Thr Thr Cys

65 70 75 80
Thr Pro Arg Ala Ala Trp Gly Asn Leu Leu Arg Arg Leu His Phe Tyr

85 90 95
Ile Gly Leu Phe Val Gly Pro Phe Ile Phe Phe Ala Ala Leu Thr Gly

100 105 110
Thr Leu Tyr Val Ala Thr Pro Gln Leu Glu Asn Ala Leu Tyr His Tyr

115 120 125 Ala Leu His Thr Asp Ala Val Gly Glu Ala Gln Pro Leu Ala Lys Gln

130 135 140

Ile Thr Val Ala Glu Lys Ala Val Gly Ser Ala Leu Arg Leu His Ala

145 150 155 160

Val Arg Pro Gly Leu Glu Glu Gly Glu Thr Thr Arg Val Met Phe Ala

165 170 175

Asp Pro Ala Leu Gly Pro Ser Glu His Arg Ala Ile Phe Ile Asp Pro

Ala Ser Leu Glu Val Arg Gly Asp Met Thr Val Tyr Gly Thr Ser Gly 195 200 205

Ile Leu Pro Leu Arg Gln Thr Ile Asp Tyr Leu His Thr Ser Leu Met 210 215 220

Leu Gly Asn Ile Gly Arg Leu Tyr Ser Glu Leu Ala Ala Ser Trp Met 225 230 235 240

Trp Val Ala Ala Leu Gly Gly Ile Ala Leu Trp Phe Tyr Thr Arg Pro 245 250 255

Lys Arg Arg Ile Asn Asn Arg Phe Gln Asn Arg Arg Leu His Val $260 \hspace{1.5cm} 265 \hspace{1.5cm} 270$ 

Ile Leu Gly Trp Thr Leu Leu Thr Gly Met Leu Leu Phe Ser Val Thr
275 280 285

Gly Leu Thr Trp Ser Gln Trp Ala Gly Gly Asn Val Asp Lys Leu Arg
290 295 300

Ala Glu Met Asn Trp Leu Thr Pro Gln Val Asn Thr Thr Leu Ser Gly 305 310 315 320

Ala Pro Glu Met Arg Asp Glu His Ala Glu His Arg Gly His His Gly
325 330 335

Gly Met Thr Met Pro Glu Met Pro Val Glu Leu Ser Leu Phe Asp Ser 340 345 350

Val Leu Gln Ala Ala Arg Gln Ser Gly Ile Asp Ala Lys Lys Val Glu 355 360 365

Ile Arg Pro Ala Ser Arg Asp Asp Gln Ala Trp Thr Val Thr Glu Ile 370 375 380

Asp Arg Arg Trp Pro Thr Gln Val Asp Ala Val Ala Val Asp Pro His 385 390 395 400

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Ser Leu Lys Val Leu Asp Ser Thr Arg Phe Gly Asp Phe Pro Leu Met
                                    410
               405
Ala Lys Leu Thr Arg Trp Gly Val Asp Phe His Met Gly Ile Leu Phe
                                425
                                                    430
           420
Gly Leu Ala Asn Gln Leu Leu Leu Ile Ala Phe Gly Val Ala Leu Cys
                            440
                                                445
Val Leu Ile Ile Trp Gly Tyr Arg Met Trp Trp Met Arg Arg Pro Ala
                        455
                                            460
Thr Ser Ala Ala Asn Pro Val Gln Thr Leu Cys Gln Ser Trp Leu Ala
                   470
                                        475
Leu Pro Leu Trp Gly Arg Gly Val Thr Phe Leu Ile Ser Leu Leu Leu
               485
                                    490
Gly Leu Ala Leu Pro Val Met Gly Val Ser Leu Val Val Phe Ile Val
                                505
Ile Asp Trp Leu Arg Trp Arg Ala Val Ser Gly Val Ser Leu Ala Gly
                            520
Thr Ser Val Lys
   530
<210> 6798
<211> 387
<212> PRT
<213> Enterobacter cloacae
<400> 6798
Thr Ala Ser Trp Arg Arg Val Trp His Lys Arg Ile Val Met Val Ala
                                    10
Glu Leu Thr Ala Leu Arg Asp Gln Ile Asp Glu Val Asp Lys Ala Leu
                                25
Leu Asp Leu Leu Ala Arg Arg Met Ala Leu Val Ala Glu Val Gly Glu
Val Lys Ser Lys Tyr Gly Leu Pro Ile Tyr Val Pro Glu Arg Glu Ala
                        55
Ser Met Leu Ala Ser Arg Arg Lys Glu Ala Gln Ala Leu Gly Val Ser
                                        75
Pro Asp Leu Ile Glu Asp Val Leu Arg Arg Val Met Arg Glu Ser Tyr
                                    90
                85
Ser Ser Glu Asn Asp Lys Gly Phe Lys Thr Leu Cys Pro Ser Leu Arg
                                105
Pro Val Val Ile Val Gly Gly Gly Gln Met Gly Arg Leu Phe Glu
                            120
                                                125
Lys Met Leu Thr Leu Ser Gly Tyr Gln Val Arg Ile Leu Glu Lys Glu
                        135
                                            140
Asp Trp Pro His Ala Pro Glu Leu Met Lys Asp Ala Gly Met Val Ile
                    150
                                        155
Val Ser Val Pro Ile His Val Thr Glu Gln Ile Ile Ala Lys Leu Pro
                                    170
Pro Leu Pro Glu Asp Cys Ile Leu Val Asp Leu Ala Ser Val Lys Asn
Gly Pro Leu Gln Ala Met Leu Ala Ala His Thr Gly Pro Val Leu Gly
                            200
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Leu His Pro Met Phe Gly Pro Asp Ser Gly Ser Leu Ala Lys Gln Val

Val Val Tyr Cys Asp Gly Arg Gln Pro Glu Ala Tyr Gln Trp Phe Leu

Glu Gln Ile Gln Val Trp Gly Ala Arg Leu His Arg Ile Ser Ala Val

Glu His Asp Gln Asn Met Ala Phe Ile Gln Ala Leu Arg His Phe Ala 265

Thr Phe Ala Tyr Gly Leu His Leu Ala Glu Glu Asn Val Gln Leu Glu 280

220

270

235

250

215

230

Gln Leu Leu Ala Leu Ser Ser Pro Ile Tyr Arg Leu Glu Leu Ala Met 295 300 Val Gly Arg Leu Phe Ala Gln Asp Pro Gln Leu Tyr Ala Asp Ile Ile 310 315 Met Ser Ser Glu Asn Asn Leu Ala Leu Ile Lys Arg Tyr Tyr Gln Arg 325 330 Phe Gly Glu Ala Ile Thr Leu Leu Glu His Gly Asp Lys Gln Ala Phe 340 345 Ile Asp Ser Phe Arg Lys Val Glu His Trp Phe Gly Asp Tyr Ala Thr 360 Arg Phe Gln Ser Glu Ser Arg Thr Leu Leu Arg Gln Ala Asn Asp Ser 375 380 Arg Gln 385

<210> 6799

<211> 311

<212> PRT

<213> Enterobacter cloacae

<400> 6799

Cys Asn Asp Val Tyr Thr Glu Ser Gln His Cys Trp Leu Phe Ser Phe 10 Trp Gly Thr Val Met Ala Glu Pro Gln Leu Leu Asn Tyr Thr Gly 25 20 His Leu Pro Glu Cys Pro Thr Trp Ser Ala Glu Glu Lys Ala Leu Tyr 40 Trp Ala Asp Ile Leu Glu Gly Glu Ile His Arg Tyr His Leu Pro Thr 55 Ala Glu His Ser Val Leu Ser Phe His Glu Glu Val Gly Cys Phe Ala 70 75 Leu Arg Glu Arg Gly Gly Phe Ile Val Ala Met Arg Asn Ala Ile Trp 8.5 90 Leu Thr Asp Lys His Gly Leu Leu Gln Arg Lys Val Cys Asp Asn Pro 105 100 Ser Asn Pro Gln Leu Ala Arg Phe Asn Asp Gly Gly Thr Asp His Gln 120 Gly Arg Phe Tyr Ala Gly Thr Phe Trp Gly Pro Gly Asp Tyr Asn Gly 135 140 Ala Met Leu Met Arg Ile Asp Asn Asp Leu Thr Pro Lys Val Ile Gln 150 155 Cys Asp Ile His Gly His Asn Gly Leu Ala Phe Ser Pro Asp Lys Arg 170 175 Trp Met Phe Thr Ser Asp Thr Pro Asn Gly Val Ile Tyr Arg Thr Pro 185 Leu Asp Glu Gln Gly Glu Pro Gly Lys Arg Glu Glu Phe Arg Arg Phe 200 Ser Glu Gly Asp Gly Ile Pro Asp Gly Ala Ala Met Asp Glu Glu Gly 215 220 Cys Tyr Trp Ser Ala Leu Phe Asp Gly Trp Arg Ile Ala Arg Phe Ser 230 235 Pro Gln Gly Glu Gln Leu Glu Glu His Arg Leu Pro Val Arg Cys Pro 255 245 250 Thr Met Val Cys Phe Gly Gly Asp Asp Met Lys Thr Leu Phe Ile Thr 265 260 Thr Thr Arg Glu Asn Met Glu Ala Glu Glu Leu Ala Lys Tyr Pro Leu 280 285 Ser Gly Ala Ile Phe Thr Leu Pro Val Asn Val Ala Gly Met Lys Lys 295 300 Ser Arg Phe Ile Glu His

<210> 6800 <211> 250 <212> PRT <213> Enterobacter cloacae <400> 6800 Gly Ser Arg Gly Leu Val Met Thr Lys Leu Ile Val Pro Glu Trp Pro 10 Leu Pro Glu Gly Val Ala Ala Cys Ser Ser Thr Arg Ile Gly Gly Val 20 25 Ser Gln Gly Ala Trp Glu Ser Leu Asn Leu Gly Ala His Cys Gly Asp 40 Asn Leu Glu His Val Glu Glu Asn Arg Lys Arg Leu Phe Ala Ala Gly 55 Asn Leu Pro Ser Lys Pro Val Trp Leu Glu Gln Val His Gly Lys Ala 75 Val Leu Lys Leu Thr Gly Glu Pro Tyr Ala Ser Lys Arg Ala Asp Ala 90 Ser Tyr Ser Asn Thr Pro Gly Thr Val Cys Ala Val Met Thr Ala Asp 105 Cys Leu Pro Val Leu Phe Cys Asn Gln Ala Gly Thr Glu Val Ala Ala 120 Ala His Ala Gly Trp Arg Gly Leu Cys Glu Gly Val Leu Glu Glu Thr 135 Val Ala Cys Phe Gln Asp Asp Ser Ala Asn Leu Ile Ala Trp Leu Gly 150 155 Pro Ala Ile Gly Pro Gln Ala Phe Glu Val Gly Pro Glu Val Arg Asp 170 165 Ala Phe Met Glu Lys Asp Pro Gln Ala Val Glu Ala Phe Val Ala Ser 180 185 Gly Asp Lys Tyr Leu Ala Asp Ile Tyr Gln Leu Ala Arg Gln Arg Leu 195 200 205 Asn Asn Val Gly Val Thr Gln Ile Phe Gly Gly Asp Arg Cys Thr Phe 215 220 Thr Glu Lys Gly Asp Phe Phe Ser Tyr Arg Arg Asp Lys Thr Thr Gly 235 240 230 Arg Met Ala Ser Phe Ile Trp Leu Ile 250 245 <210> 6801 <211> 359 <212> PRT <213> Enterobacter cloacae <220> <221>UNSURE <222>(343) <400> 6801 Pro Val Met Gly Gly Val Met Arg Leu Asp Arg Leu Thr Asn Lys Phe 10 Gln Leu Ala Leu Ala Asp Ala Gln Ser Leu Ala Leu Gly His Asp Asn 20 25 Gln Phe Ile Glu Pro Leu His Leu Met Ser Ala Leu Leu Asn Gln Glu 35 . 40 45 Gly Gly Ser Val Arg Pro Leu Leu Thr Ser Ala Gly Ile Asn Ala Gly 55 60

Gln Leu Arg Thr Ala Ile Asp Gln Ala Leu Ser Arg Leu Pro Gln Val

Glu Gly Thr Gly Gly Asp Val Gln Pro Ser Gln Asp Leu Val Arg Val

75

90 85 Leu Asn Leu Cys Asp Lys Leu Ala Gln Lys Arg Gly Asp Asn Phe Ile 100 105 110 Ser Ser Glu Leu Phe Val Leu Ala Ala Leu Glu Ser Arg Gly Thr Leu 120 125 Thr Asp Leu Leu Lys Ser Ala Gly Ala Thr Thr Ala Asn Val Thr Gln 135 140 Ala Ile Glu Lys Met Arg Gly Gly Glu Ser Val Asn Asp Gln Gly Ala 150 155 Glu Asp Gln Arg Gln Ala Leu Lys Lys Phe Thr Val Asp Leu Thr Glu 170 165 Arg Ala Glu Gln Gly Lys Leu Asp Pro Val Ile Gly Arg Asp Glu Glu 180 185 Ile Arg Arg Thr Ile Gln Val Leu Gln Arg Arg Thr Lys Asn Asn Pro 195 200 205 Val Leu Ile Gly Glu Pro Gly Val Gly Lys Thr Ala Ile Val Glu Gly 215 220 Leu Ala Gln Arg Ile Val Asn Gly Glu Val Pro Glu Gly Leu Lys Gly 230 235 Arg Arg Val Leu Ala Leu Asp Met Gly Ala Leu Val Ala Gly Ala Lys 250 245 Tyr Arg Gly Glu Phe Glu Glu Arg Leu Lys Gly Val Leu Asn Asp Leu 260 265 Ala Lys Gln Glu Gly Asn Val Ile Leu Phe Ile Asp Glu Leu His Thr 285 275 280 Met Val Gly Ala Gly Lys Ala Asp Gly Ala Met Asp Ala Gly Asn Met 295 300 Leu Lys Pro Ala Leu Ala Arg Gly Glu Leu His Cys Val Gly Ala Thr 310 315 Thr Leu Asp Glu Tyr Arg Gln Tyr Ile Glu Lys Asp Ala Ala Leu Glu 325 330 Arg His Phe Gln Lys Val Xaa Val Ala Glu Pro Ser Val Glu Asp Thr 340 345 350 Ser Pro Phe Cys Val Val 355

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<210> 6802
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# <400> 6802

Ala 1	Trp	Leu	Trp	Trp 5	Ala	Ala	Pro	Val	Trp 10	Asn	Glu	Gln	Val	Pro 15	Asp
Asn	Pro	Pro	Asn 20	Glu	Ile	Tyr	Ala	Thr 25	Ala	Gln	Gln	Lys	Leu 30	Gln	Asp
Gly	Asn	Trp 35	Lys	Gln	Ala	Ile	Thr 40	Gln	Leu	Glu	Ala	Leu 45	Asp	Asn	Arg
Tyr	Pro 50	Phe	Gly	Pro	Tyr	Ser 55	Gln	Gln	Val	Gln	Leu 60	Asp	Leu	Ile	Tyr
Ala 65	Tyr	Tyr	Lys	Asn	Ala 70	Asp	Leu	Pro	Leu	Ala 75	Gln	Ala	Thr	Ile	Asp 80
Arg	Phe	Met	Arg	Leu 85	Asn	Pro	Thr	His	Pro 90	Asn	Ile	Asp	Tyr	Val 95	Met
Tyr	Met	Arg	Gly 100	Leu	Thr	Asn	Met	Ala 105	Leu	Asp	Asp	Ser	Ala 110	Leu	Gln
Gly	Phe	Phe 115	Gly	Val	Asp	Arg	Ser 120	Asp	Arg	Asp	Pro	Gln 125	His	Ala	Arg
Asp	Ala 130	Phe	Asn	Asp	Phe	Ser 135	Lys	Leu	Val	Arg	Ser 140	Tyr	Pro	Asn	Ser
Gln	Tyr	Ile	Thr	Asp	Ala	Thr	Lys	Arg	Leu	Val	Phe	Leu	Lys	Asp	Arg

<sup>&</sup>lt;211> 233

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

2907 150 155 Leu Ala Lys Tyr Glu Tyr Ser Val Ala Glu Tyr Tyr Thr Arg Arg Gly 170 Ala Trp Val Ala Val Val Asn Arg Val Glu Gly Met Leu Arg Asp Tyr 185 Pro Asp Thr Gln Ala Thr Arg Asp Gly Leu Lys Leu Met Glu Asn Ala 200 Tyr Arg Gln Met Gln Met Thr Ala Gln Ala Asp Lys Val Ala Lys Ile 215 Ile Ala Ala Asn Ser Ser Asn Thr 230 <210> 6803 <211> 132 <212> PRT <213> Enterobacter cloacae <400> 6803 His Trp Val Gly Tyr Ala Gly Ile Thr Lys Thr Glu Arg Gln Glu Val 10 Lys Phe Met Thr Met Asn Ile Thr Ser Lys Gln Met Glu Ile Thr Pro 20 25 Ala Ile Arg Gln His Val Ala Asp Arg Leu Ala Lys Leu Asp Lys Trp 40 Gln Thr His Leu Ile Asn Pro His Ile Ile Leu Ser Lys Glu Pro Gln 55 Gly Phe Ile Ala Asp Ala Thr Ile Asn Thr Pro Asn Gly His Leu Val 70 Ala Ser Ala Lys His Glu Asp Met Tyr Thr Ala Ile Asn Asp Leu Ile 90 Asn Lys Leu Glu Arg Gln Leu Asn Lys Val Gln His Lys Gly Glu Ala 105 110 100 Arg Arg Ala Ala Thr Ser Val Lys Asp Ala Ser Phe Ala Glu Glu Val 115 120 . Glu Glu Glu 130 <210> 6804 <211> 143 <212> PRT <213> Enterobacter cloacae <400> 6804 Asn Tyr Thr Arg Thr Leu Val Ser Gln Ala Met Leu Thr Lys Arg Arg . 5 10 Ile Ala Met Arg Ser Ile Thr Leu Met Leu Ser Leu Ile Leu Ser 25 Gly Cys Gln Ile Asn Pro Tyr Ala Phe Gln Pro Gly Trp Thr Ser Pro 45 40 Asp Trp Phe Thr Ala Gly Lys Glu Asp Ala Met Asn Gly Val Pro Val 55 Lys Asp Asn Gln Ala Leu Ala Asp Ser Phe Asn Asp Pro Gln Val Asp 70 75 Arg Gly Glu Tyr Leu Arg Gly Tyr Ala Asp Gly Gln Lys Lys Ile Cys 90 Glu Glu Gly Phe Ile His Ala Trp Gly Leu Ala Gly Lys Ser Phe Pro

105 Ala Ser Cys Asp Thr Thr Glu Asn Ala Val Lys Leu Tyr Glu Ser Trp 120 Gln Gln Gly Met Asp Glu Ser Met Arg Ser Ser Arg Leu Asn 135

<210> 6805 <211> 200 <212> PRT <213> Enterobacter cloacae <400> 6805 55 70 100 135 150

Thr Met Val Phe Cys Arg Gln Phe Leu Arg Thr Ser Ile Ser Gly Ala 10 Val Trp Arg Ile Leu Met Arg Asn Ala Ile Leu Ile Ala Leu Leu Arg 25 Leu Pro Leu Ala Leu Met Leu Phe Ile Leu Val Ala Pro Ala Lys Ala Gly Ser Phe Thr Glu Thr Asp Lys Ser Val Arg Ser Ile Val Ser Gly Ile Val Ser Tyr Thr Arg Trp Pro Ala Leu Ser Gly Gln Pro Lys Leu 75 Cys Ile Tyr Ala Ser Ser His Tyr Arg Gln Ala Leu Ser Ser Glu Asp 90 Glu His Asn Pro Leu Pro Tyr Ser Pro Val Ile Val His Ser Asp Arg 105 Glu Ala Leu Thr Ala Arg Cys Asp Ala Leu Tyr Phe Gly Ser Glu Ser 120 125 Pro Ala Lys Gln Gln Glu Ile Ile Asn Gln Tyr Gln Gly Gln Ala Leu 140 Leu Leu Met Ser Glu Gln Asn Pro Glu Cys Val Ile Gly Ser Ala Phe 155 Cys Leu Ile Ile Glu His Asn Gln Val Arg Phe Ser Val Asn Leu Asp 170 165 Ala Leu Ala Arg Ser Gly Val Arg Val Asn Pro Asp Val Leu Met Leu 185 180 Ala Arg Asn Lys Lys His Glu

<210> 6806 <211> 393 <212> PRT

<213> Enterobacter cloacae

195

<400> 6806

Asn Glu Thr Asp Asn Thr Met Thr Pro Glu Asn Pro Leu Leu Asp Leu Arg Val Lys Ile Ser Ala Leu Asp Glu Lys Leu Leu Ala Leu Leu Ala Glu Arg Arg Ala Leu Ala Val Glu Val Gly Lys Ala Lys Leu Glu Ser His Arg Pro Val Arg Asp Ile Asp Arg Glu Arg Asp Leu Leu Glu Arg Leu Ile Gln Leu Gly Lys Ala His His Leu Asp Ala His Tyr Ile Thr 70 75 Arg Leu Phe Gln Leu Ile Ile Glu Asp Ser Val Leu Thr Gln Gln Ala 85 90 Leu His Gln Gln His Leu Asn Lys Thr Asn Pro His Ser Ala Arg Ile 105 110 Ala Phe Leu Gly Pro Lys Gly Ser Tyr Ser His Leu Ala Ala Arg Gln 120 125 Tyr Ala Ala Arg His Phe Glu Glu Phe Ile Glu Ser Gly Cys Ala Lys 135 140 Phe Ala Asp Ile Phe Asn Gln Val Glu Thr Gly Gln Ala Asp Tyr Ala 150 155 Val Val Pro Ile Glu Asn Thr Ser Ser Gly Ala Ile Asn Asp Val Tyr

165 170 Asp Leu Leu Gln His Thr Ser Leu Ser Leu Val Gly Glu Leu Thr Ile 185 180 Pro Ile Asp His Cys Val Leu Val Ser Gly Ser Thr Asp Leu Asn Gln 200 205 Ile Glu Thr Val Tyr Ser His Pro Gln Pro Phe Gln Gln Cys Ser Gln 215 220 Phe Leu Asn Arg Tyr Pro His Trp Lys Ile Glu Tyr Thr Glu Ser Thr 230 235 Ser Ala Ala Met Glu Lys Val Ala Gln Ala Asn Ser Pro Ala Val Ala 245 250 Ala Leu Gly Ser Glu Ala Gly Gly Ala Leu Tyr Gly Leu Gln Val Leu 265 Glu Arg Asn Leu Ala Asn Gln Thr Gln Asn Ile Thr Arg Phe Val Val 280 Leu Ala Arg Lys Ala Ile Asn Val Ser Asp Gln Val Pro Ala Lys Thr 295 300 Thr Leu Leu Met Ala Thr Gly Gln Gln Ala Gly Ala Leu Val Glu Ala 315 310 Leu Leu Val Leu Arg Asn His Asn Leu Ile Met Thr Lys Leu Glu Ser 325 330 Arg Pro Ile His Gly Asn Pro Trp Glu Glu Met Phe Tyr Leu Asp Val 345 340 Gln Ala Asn Leu Glu Ser Ala Ser Met Gln Lys Ala Leu Arg Glu Leu 360 Gly Glu Ile Thr Arg Ser Met Lys Val Leu Gly Cys Tyr Pro Ser Glu 375 380 Thr Val Val Pro Val Asp Pro Ala 390

<210> 6807 <211> 414

<212> PRT

<213> Enterobacter cloacae

<400> 6807

Cys Ser His Gly Ile Arg Ser Met Asn Lys Glu Val Val Pro Thr Pro 10 Arg Pro Thr Phe Lys Arg Thr Leu Arg Arg Ile Ser Met Ile Ser Val Ile Ile Thr Met Thr Phe Ile Trp Leu Leu Leu Cys Phe Ala Ser Val 40 Val Thr Leu Lys Gln Tyr Ala Gln Lys Asn Leu Glu Leu Thr Gly Ala Thr Met Ser His Ser Leu Glu Ala Ser Leu Val Phe Asn Asp Ala Val 70 Ala Ala Asn Glu Thr Leu Ala Thr Leu Gly Lys Gln Gly Gln Phe Ala 85 90 Val Ala Glu Val Leu Asn Ala His His Lys Arg Phe Ala Trp Trp Ser 105 110 Trp Asn Pro Ala Asp Asn Thr Asp Thr Leu Gly Ala Leu Val Asn Arg 120 125 115 Trp Leu Phe Pro Val Pro Val Ala Gln Pro Ile Ile His Asn Gly Asn 135 140 Val Ile Gly Glu Ile Arg Leu Thr Ala Arg Asp Ser Leu Ile Ser His 155 150 Phe Ile Trp Leu Ser Phe Ala Val Leu Thr Gly Cys Ile Leu Phe Ala 170 165 Ser Ala Val Ala Leu Thr Ile Thr Arg Ser Leu His His Gly Met Val 185 Val Glu Met Gln Asn Ile Thr Asp Val Val His Asp Val Arg Thr Asn

195 200 205 Arg Asn Phe Ser Arg Arg Val Thr Glu Gly Arg Ile Glu Glu Phe His 215 220 Gln Phe Gly Glu Asp Phe Asn Ser Leu Leu Asp Glu Met Glu Glu Trp 235 230 Gln Leu Lys Leu Gln Ala Lys Asn Ala Gln Leu Leu Arg Thr Ala Met 245 250 His Asp Pro Leu Thr Gly Leu Ala Asn Arg Ala Ala Phe Arg Asn Asn 260 265 Ile Ala Ala Leu Met Asn Asp Ala Ser Ala Lys Thr Asn Ser Ala Leu 280 285 Leu Phe Leu Asp Gly Asp Asn Phe Lys Phe Ile Asn Asp Thr Trp Gly 295 300 His Ala Ala Gly Asp Cys Val Leu Ile Glu Ala Ala Lys Arg Met Val 310 315 Glu Phe Gly Glu Lys Arg His Gln Ser Tyr Arg Leu Gly Gly Asp Glu 330 Phe Ala Met Ile Leu Tyr Gly Val His Thr Ala Arg Glu Val Glu Tyr 345 340 Ile Cys Ala Ala Leu Ser Gln Gln Phe Ile Arg Pro Phe Asp Leu His 360 Asn Gly His Thr Ala Ser Met Ser Leu Ser Ile Gly Phe Ala Leu Ala 375 380 Trp Glu Asn Ala Ser Val Glu Ala Leu Leu Glu Gln Ala Asp Arg Asn 390 395 Met Tyr Leu Val Lys Asn Gln Arg Ser Lys Thr Ile Ser 405 410

<210> 6808 <211> 166

<212> PRT <213> Enterobacter cloacae

<400> 6808

Lys Glu Asp Asp Met Leu Lys Arg Tyr Phe Ala Pro Leu Leu Ala 1 10 Ser Leu Ala Met Ser Gly Cys Gln Ser Ser Pro Glu Gly Lys Phe Thr 20 25 Pro Glu Gln Ile Ala Ala Met Lys Ser Tyr Gly Phe Asn Glu Leu Asn 40 Gly Asp Trp Ser Leu Gly Leu Ser Asp Lys Ile Leu Phe Asp Lys Asn 55 Asp Ala Arg Leu Arg Pro Glu Ser Gln Thr Gln Ile Gln Thr Met Ala 70 Ser Arg Leu Ala Ala Thr Gly Leu Asn His Ala Arg Met Asp Gly His 90 Thr Asp Asn Tyr Gly Glu Glu Ser Tyr Asn Glu Ala Leu Ser Leu Lys 105 Arg Ala Asn Val Val Ala Asp Ala Trp Ala Lys Gly Ala Asn Ile Pro 120 125 Arg Ser Asn Leu Thr Thr Arg Gly Leu Gly Lys Lys Tyr Pro Val Ser 135 140 Ser Asn Arg Thr Ala Gln Gly Arg Ala Glu Asn Arg Arg Val Ala Val

155

<210> 6809

Val Ile Ser Thr Pro

<211> 272

<212> PRT

<213> Enterobacter cloacae

150

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<210>'6810
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#### <400> 6810

<sup>&</sup>lt;211> 83

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;210> 6811

<sup>&</sup>lt;211> 195

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6811 Gly Ala Thr Met Arg Val Ile Thr Leu Ala Gly Ser Pro Arg Phe Pro 5 10 Ser Arg Ser Ser Ala Leu Leu Glu Tyr Ala Arg Glu Lys Leu Asn Ala 25 Leu Asp Val Glu Val Cys His Trp Asn Leu His Asn Phe Ala Pro Glu 40 Asp Leu Leu Tyr Ala Arg Phe Asp Ser Pro Ala Leu Lys Thr Leu Ile 55 Glu Gln Leu Lys Ser Ala Asp Gly Leu Val Val Ala Thr Pro Ile Tyr 75 Lys Ala Ser Phe Ser Gly Ala Leu Lys Thr Leu Leu Asp Leu Leu Pro Glu Arg Ala Leu Asp Gly Lys Val Val Leu Pro Leu Ala Thr Gly Gly 105 Thr Val Ala His Leu Leu Ala Val Asp Tyr Ala Leu Lys Pro Val Leu 120 Asn Ala Leu Lys Ala Gln Glu Ile Leu His Gly Val Phe Ala Asp Asp 135 140 Ser Gln Val Ile Asp Tyr Gln His Lys Pro His Phe Thr Pro Asn Leu 150 155 Gln Thr Arg Leu Asp Ser Ala Leu Glu Thr Phe Trp His Ala Leu Asn 165 170 Arg Arg Asp Arg His Ala Ala Ala Phe His Gln Ser Gln Gly Val Ala 185 180 His Val 195

<210> 6812 <211> 386 <212> PRT

<400> 6812

<213> Enterobacter cloacae

Arg Lys Lys Ile Met Ser Leu Asn Leu Phe Trp Phe Leu Pro Thr His 10 Gly Asp Gly His Tyr Leu Gly Thr Glu Glu Gly Ala Arg Pro Val Asp His Gly Tyr Leu Gln Gln Ile Ala Gln Ala Ala Asp Arg Ile Gly Phe Thr Gly Val Leu Ile Pro Thr Gly Arg Ser Cys Glu Asp Ala Trp Leu Val Ala Ala Ser Met Ile Pro Val Thr Gln Arg Leu Lys Phe Leu Val Ala Leu Arg Pro Ser Val Val Ser Pro Thr Val Ala Ala Arg Gln Ala 90 Ala Thr Leu Asp Arg Leu Ser Asn Gly Arg Ala Leu Phe Asn Leu Val 105 Thr Gly Ser Asp Pro Gln Glu Leu Ala Gly Asp Gly Val Phe Leu Asp 120 125 His Thr Glu Arg Tyr Glu Ala Ser Ala Glu Phe Thr Arg Val Trp Arg 135 140 Arg Leu Leu Glu Gly Glu Thr Val Thr Phe Glu Gly Lys His Ile His 150 155 Val Arg Asp Ala Gln Leu Tyr Phe Pro Pro Leu Gln Gln Pro Arg Pro 170 165 Pro Leu Tyr Phe Gly Gly Ser Ser Asp Val Ala Gln Glu Leu Ala Ala 185 190 Glu Gln Val Asp Leu Tyr Leu Thr Trp Gly Glu Pro Pro Glu Leu Val 200 Lys Glu Lys Ile Ala Gln Val Arg Ala Lys Ala Ala Glu His Gly Arg

215 220 Thr Val Arg Phe Gly Ile Arg Leu His Val Ile Val Arg Glu Thr Asn 230 235 Asp Glu Ala Trp Gln Ala Ala Asp Arg Leu Ile Ala His Leu Asp Asp 250 245 Asp Thr Ile Ala Lys Ala Gln Ala Ala Phe Ala Lys Thr Asp Ser Val 260 265 Gly Gln His Arg Met Ala Ser Leu His Asn Gly Lys Arg Glu Asn Leu 280 Glu Ile Ser Pro Asn Leu Trp Ala Gly Val Gly Leu Val Arg Gly Gly 295 300 Ala Gly Thr Ala Leu Val Gly Asp Gly Pro Thr Val Ala Ala Arg Ile 310 315 Asn Glu Tyr Ala Ala Leu Gly Ile Asp Ser Phe Ile Leu Ser Gly Tyr 325 330 Pro His Leu Glu Glu Ala Tyr Lys Val Gly Glu Leu Leu Phe Pro His 340 345 Leu Asp Val Ala Ile Pro Glu Ile Pro Gln Pro Arg Gln Leu Gln Leu 365 360 Gln Gly Glu Ala Val Ala Asn Ala Phe Ile Pro Arg Lys Val Ala Gln 375 380 Ser 385 <210> 6813 <211> 267 <212> PRT <213> Enterobacter cloacae <400> 6813 Gly Ala Thr Met Ser Ala Thr Ala Gln Lys Trp Leu Leu Arg Ala Ala 1.0 Pro Trp Phe Leu Pro Val Gly Ile Val Leu Val Trp Gln Leu Ala Ser 20 25 Ser Thr Gly Trp Leu Ser Ser Arg Ile Leu Pro Ser Pro Glu Gly Val 35 . 40 45 Val Glu Ala Phe Trp Ser Leu Ser Ala Ser Gly Glu Leu Trp Gln His 55 60 Leu Ala Ile Ser Ser Trp Arg Ala Val Ile Gly Phe Ser Ile Gly Gly 70 75 Ser Ile Gly Leu Thr Leu Gly Leu Ile Ser Gly Leu Ser Arg Trp Gly 90 Glu Arg Leu Leu Asp Thr Ser Val Gln Met Leu Arg Asn Val Pro His 100 105 Leu Ala Leu Ile Pro Leu Val Ile Leu Trp Phe Gly Ile Asp Glu Ser 120 Ala Lys Ile Phe Leu Val Ala Leu Gly Thr Leu Phe Pro Ile Tyr Ile 1.35 140 Asn Thr Trp His Gly Ile Arg Asn Ile Asp Arg Gly Leu Val Glu Met 150 155 Ala Arg Ser Tyr Gly Leu Ser Gly Phe Ala Leu Phe Thr His Val Ile 165 170 Leu Pro Gly Ala Leu Pro Ser Ile Met Val Gly Val Arg Phe Ala Leu 180 185 190 Gly Leu Met Trp Leu Thr Leu Ile Val Ala Glu Thr Ile Ser Ala Asn 200 205 Ser Gly Ile Gly Tyr Leu Ala Met Asn Ala Arg Glu Phe Leu Gln Thr 215 220 Asp Val Val Val Ala Ile Val Leu Tyr Ala Leu Leu Gly Lys Leu 230 235 Ala Asp Val Ser Ala Gln Trp Leu Glu Arg Ser Trp Leu Arg Trp Asn

255

245 250
Pro Ala Tyr Thr Ala Gln Glu Ala Lys Ala
260 265

<210> 6814

<211> 338

<212> PRT

<213> Enterobacter cloacae

<400> 6814

Thr Val Gly Ile Ala Thr Arg Arg His Phe Ile Asn His Lys Glu Trp Arg Met Phe Lys Thr Val Thr Arg Ile Gly Leu Ala Gly Leu Leu Ala 20 25 Val Ala Ser Leu Ala Gln Ala Thr Glu Lys Ala Pro Glu Ser Leu Arg 40 Ile Gly Tyr Gln Lys Gly Ser Val Ser Met Val Leu Ala Lys Ser His 55 Ala Leu Leu Glu Lys Arg Phe Pro Glu Thr Lys Phe Ser Trp Val Glu 70 75 Phe Pro Ala Gly Pro Gln Met Leu Glu Ala Leu Asn Val Gly Ser Ile 8.5 90 Asp Leu Gly Ser Thr Gly Asp Ile Pro Pro Ile Phe Ala Gln Ala Ala 100 105 Gly Ala Asp Leu Val Tyr Val Gly Val Glu Pro Ala Lys Pro Lys Ala 120 125 115 Glu Val Ile Leu Val Pro Glu Asn Ser Glu Ile Lys Ser Val Ala Asp 135 140 Leu Lys Gly His Lys Val Ala Phe Gln Lys Gly Ser Ser His Asn 150 155 Leu Leu Leu Arg Ala Leu Gln Glu Ala Gly Leu Lys Phe Thr Asp Ile 165 170 Gln Pro Val Tyr Leu Thr Pro Ala Asp Ala Arg Ala Ala Phe Gln Gln 180 185 190 Lys Asn Val Asp Ala Trp Ala Ile Trp Asp Pro Tyr Tyr Ser Ala Ala 200 205 Leu Leu Gln Gly Gly Val Arg Val Leu Lys Asp Gly Thr Thr Leu Lys 215 220 Gln Thr Gly Ser Phe Tyr Leu Ala Ala Arg Pro Tyr Ala Glu Lys Asn 230 235 Gly Ala Phe Ile Gln Gln Val Leu Asp Thr Phe Ser Gln Ala Asp Ala 250 Leu Thr Gln Ser Gln Arg Gln Gln Ser Ile Thr Leu Leu Ala Lys Thr 265 270 Met Gly Leu Pro Glu Pro Val Ile Ala Thr Tyr Leu Asp His Arg Pro 280 285 Pro Thr Thr Ile Ala Pro Val Asp Ala His Val Ala Ala Leu Gln Gln 295 Gln Thr Ala Asp Leu Phe Tyr Gln Asn Arg Leu Val Pro Lys Gln Val 310 315

Asn Ile Arg Glu Arg Ile Trp Gln Pro Ala Gly Ile Glu Gly Lys Lys

330

Ser

<210> 6815

<211> 102

<212> PRT

<213> Enterobacter cloacae

Tyr Arg Thr Phe Arg Gly Arg Glu Arg Asn Met Arg Ile Lys Pro Asp 10 Asp Asn Trp Arg Trp Tyr Phe Cys Glu Glu His Asp Arg Met Met Leu 25 Asp Leu Ala Asn Gly Met Leu Phe Arg Ser Arg Phe Ala Arg Arg Met 40 Leu Thr Pro Asp Ala Phe Ala Pro Ser Gly Phe Cys Val Asp Asp Ala 55 60 Ala Leu Tyr Phe Ser Phe Glu Glu Lys Cys Arg Asp Leu Asp Leu Ser 70 75 Lys Glu Gln Arg Ala Glu Leu Val Leu Ser Leu His His Gly Thr Gly 85 90 Arg Ile Arg Val Met Leu

100

<210> 6816

<211> 906

<212> PRT

<400> 6816

<213> Enterobacter cloacae

Leu Lys Arg Ala Leu Cys Leu Lys Arg Arg Thr Phe Cys Ile Ala Arg 10 Phe Thr Gln Glu Tyr Ile Glu Ser Leu Leu Asp Lys Arg Cys Ile 20 Arg Phe Ser Met Thr Gln Gln Pro Gln Ala Lys Tyr Arg His Asp Tyr 40 Arg Ala Pro Glu Tyr Leu Ile Ser Asp Ile Asp Leu Thr Phe Asp Leu 55 Asp Ala Thr Lys Thr Val Val Thr Ala Val Ser Gln Val Thr Arg Gln 70 Ser Ala Thr Ala Val Ser Leu Arg Leu Asp Gly Glu Asp Leu Thr Leu 85 90 Val Ser Leu His Ile Asn Asp Glu Ala Trp Ser Asp Tyr Lys Glu Glu 105 110 Gly Asn Gln Leu Val Ile Asp Asn Leu Pro Glu Arg Phe Thr Leu Arg 120 125 Ile Val Asn Glu Ile Ser Pro Ala Ala Asn Thr Ala Leu Glu Gly Leu

135 140 Tyr Gln Ser Gly Val Ala Leu Cys Thr Gln Cys Glu Ala Glu Gly Phe 150 155 Arg His Ile Thr Trp Tyr Leu Asp Arg Pro Asp Val Leu Ala Arg Phe 170 165 Thr Thr Lys Ile Ile Ala Asp Lys Thr Leu Tyr Pro Tyr Leu Leu Ser

Asn Gly Asn Arg Ile Gly Glu Gly Glu Leu Glu Asn Gly Arg His Trp 200

Val Gln Trp Gln Asp Pro Phe Pro Lys Pro Cys Tyr Leu Phe Ala Leu 215 220

Val Ala Gly Asp Phe Asp Val Leu Arg Asp Thr Phe Lys Thr Arg Ser 235 230

Gly Arg Glu Val Ala Leu Glu Leu Phe Val Asp Arg Gly Asn Leu Asp 245 250

Arg Ala Pro Trp Ala Met Thr Ser Leu Ile Asn Ser Met Lys Trp Asp 260 265 270

Glu Thr Arg Phe Gly Leu Glu Tyr Asp Leu Asp Ile Tyr Met Ile Val 275 280 285

Ala Val Asp Phe Phe Asn Met Gly Ala Met Glu Asn Lys Gly Leu Asn 295 300

Ile Phe Asn Ser Lys Tyr Val Leu Ala Arg Thr Asp Thr Ala Thr Asp 310 315

Lys Asp Tyr Leu Asp Ile Glu Arg Val Ile Gly His Glu Tyr Phe His 330 325. Asn Trp Thr Gly Asn Arg Val Thr Cys Arg Asp Trp Phe Gln Leu Ser 345 340 Leu Lys Glu Gly Leu Thr Val Phe Arg Asp Gln Glu Phe Ser Ser Asp 360 Leu Gly Ser Arg Ala Val Asn Arg Ile Asn Asn Val Arg Thr Met Arg 375 380 Gly Leu Gln Phe Ala Glu Asp Ala Ser Pro Met Ala His Pro Ile Arg 390 395 Pro Asp Lys Val Ile Glu Met Asn Asn Phe Tyr Thr Leu Thr Val Tyr 410 Glu Lys Gly Ala Glu Ile Ile Arg Met Ile His Thr Leu Leu Gly Glu 420 425 Glu Asn Phe Gln Lys Gly Met Gln Leu Tyr Phe Glu Arg His Asp Gly 440 Ser Ala Ala Thr Cys Asp Asp Phe Val Gln Ala Met Glu Asp Ala Ser 455 460 Asn Val Asp Leu Ser His Phe Arg Arg Trp Tyr Ser Gln Ala Gly Thr 475 470 Pro Ile Val Thr Val Lys Asp Asp Tyr Asn Pro Glu Thr Glu Gln Tyr 485 490 Thr Leu Thr Ile Ser Gln Arg Thr Pro Pro Thr Ala Glu Gln Glu Glu 500 505 Lys His Pro Leu His Ile Pro Phe Ser Val Glu Leu Tyr Asp Asn Glu 525 515 520 Gly Asn Val Ile Pro Leu Gln Lys Gly Gly His Pro Val His Asn Val - 530 535 540 Leu Asn Val Thr Gln Ala Glu Gln Thr Phe Ile Phe Asp Asn Val Tyr 550 555 Phe Gln Pro Val Pro Ala Leu Leu Cys Glu Phe Ser Ala Pro Val Lys 570 565 Leu Glu Tyr Lys Trp Ser Asp Gln Gln Leu Thr Phe Leu Met Arg His 580 585 Ala Arg Asn Asp Phe Ser Arg Trp Asp Ala Ala Gln Ser Leu Leu Ala 595 600 Thr Tyr Ile Lys Leu Asn Val Asn Arg Tyr Gln Gln Gly Gln Pro Leu 615 620 Thr Leu Pro Val His Val Ala Asp Ala Phe Arg Ala Ile Leu Leu Asp 630 635 Glu Asn Ile Asp Pro Ala Leu Ala Ala Glu Ile Leu Thr Leu Pro Ser 645 650 Ala Thr Glu Ile Ala Glu Leu Phe Asp Ile Ile Asp Pro Ile Ala Ile 665 Val Ala Val Arg Glu Ala Leu Thr Arg Thr Leu Val Thr Glu Leu Ala 680 Asp Glu Phe Leu Ala Ile Tyr Asn Ala Asn Lys Leu Asp Ala Tyr Arg 695 700 Val Glu His Ala Asp Ile Gly Lys Arg Ser Leu Arg Asn Thr Cys Leu 710 715 Arg Tyr Leu Ala Phe Gly Glu Ala Glu Leu Ala Asn Thr Leu Val Ser 725 730 Lys Gln Tyr His Glu Ala Asp Asn Met Thr Asp Ala Leu Ala Ala Leu 750 740 745 Ala Ala Ser Val Ala Ala Glu Leu Pro Cys Arg Asp Ala Leu Met Gln 760 765 Glu Tyr Asp Asp Lys Trp Tyr Gln Asp Gly Leu Val Met Asp Lys Trp 780 775 Phe Ile Leu Gln Ala Thr Ser Pro Ala Ala Asp Val Leu Ser Lys Val 790 795 Arg Ser Leu Leu Lys His Arg Ser Phe Thr Met Ser Asn Pro Asn Arg

805 810 Val Arg Ser Leu Ile Gly Ala Phe Ala Ser Ser Asn Pro Ala Ala Phe 820 825 His Ala Glu Asp Gly Ser Gly Tyr Gln Phe Met Val Glu Met Leu Thr 840 845 Glu Leu Asn Ser Arg Asn Pro Gln Val Ala Ser Arg Leu Ile Glu Pro 855 860 Leu Ile Arg Leu Lys Arg Tyr Asp Ala Gln Arg Gln Ala Lys Met Arg 870 875 Ala Ala Leu Glu Gln Leu Lys Gly Leu Glu Asn Leu Ser Gly Asp Leu 885 890 Tyr Glu Lys Ile Ala Lys Ala Leu Ala 900

<210> 6817 <211> 350 <212> PRT

<213> Enterobacter cloacae

<400> 6817 Ser Pro Pro Gly Leu His Thr Gly Asn Pro Gly Glu Phe Met Tyr Tyr 10 Pro Phe Val Arg Lys Ala Leu Phe Gln Leu Asp Pro Glu Arg Ala His 20 25 Glu Phe Thr Phe Gln Gln Leu Arg Arg Ile Thr Gly Thr Pro Leu Ala 40 Ala Leu Val His Gln Asn Val Pro Glu Lys Pro Val Gln Cys Met Gly 55 60 Leu Thr Phe Lys Asn Pro Leu Gly Leu Ala Ala Gly Leu Asp Lys Asn 70 Gly Glu Cys Ile Asp Ala Leu Gly Ala Met Gly Phe Gly Ser Ile Glu 8.5 90 Ile Gly Thr Val Thr Pro Arg Pro Gln Pro Gly Asn Asp Lys Pro Arg 100 105 Leu Phe Arg Leu Val Glu Ala Glu Gly Leu Ile Asn Arg Met Gly Phe 120 115 125 Asn Asn Leu Gly Val Asp His Leu Val Glu Asn Val Lys Lys Ala His 135 140 Phe Asp Gly Val Leu Gly Ile Asn Ile Gly Lys Asn Lys Asp Thr Pro 150 155 Val Glu Gln Gly Lys Asp Asp Tyr Leu Ile Cys Met Glu Lys Val Tyr 165 170 Ala Tyr Ala Gly Tyr Ile Ala Val Asn Ile Ser Ser Pro Asn Thr Pro 180 185 Gly Leu Arg Ser Leu Gln Tyr Gly Glu Ala Leu Asp Asp Leu Leu Ser 200 Ala Ile Lys Asn Lys Gln Thr Ala Leu Gln Ala Ile His His Lys Tyr 215 Val Pro Val Ala Val Lys Ile Ala Pro Asp Leu Ser Ala Glu Glu Leu 230 235 Ile Gln Val Ala Asp Ser Leu Val Arg His Asn Ile Asp Gly Val Ile 245 250 Ala Thr Asn Thr Thr Leu Asp Arg Ser Leu Val Gln Gly Met Lys Asn 265 Cys Asp Glu Ala Gly Gly Leu Ser Gly Arg Pro Val Gln Leu Lys Ser 280 Thr Glu Ile Ile Arg Ala Leu Ser Ala Glu Leu Lys Gly Gln Leu Pro 295 300 Ile Ile Gly Val Gly Gly Ile Asp Ser Val Ile Ala Ala Arg Glu Lys 310 315 Met Ala Ala Gly Ala Ser Leu Val Gln Ile Tyr Ser Gly Phe Ile Phe

325 330 335

Lys Gly Pro Pro Leu Ile Lys Glu Ile Val Thr His Ile
340 345 350

<210> 6818 <211> 468 <212> PRT

<213> Enterobacter cloacae

<400> 6818

Leu Ala Asp Leu Glu Phe Asp Pro Ala His Met Leu Ser Ser Gln Ser Pro Ser Ile Tyr Thr Val Ser Arg Leu Asn Gln Thr Val Arg Leu Leu 20 25 Leu Glu Gln Glu Met Gly Gln Val Trp Ile Ser Gly Glu Ile Ser Asn 40 Phe Thr Gln Pro Ala Ser Gly His Trp Tyr Phe Thr Leu Lys Asp Asp 55 Thr Ala Gln Val Arg Cys Ala Met Phe Arg Asn Ser Asn Arg Arg Val 70 75 Thr Phe Arg Pro Gln His Gly Gln Gln Val Leu Val Arg Ala Asn Ile 90 85 Thr Leu Tyr Glu Pro Arg Gly Asp Tyr Gln Ile Ile Val Glu Ser Met 105 100 Gln Pro Ala Gly Glu Gly Leu Leu Gln Gln Lys Tyr Glu Gln Leu Lys 120 Ala Met Leu Ser Ala Glu Gly Leu Phe Asp Gln Gln Phe Lys Lys Pro 135 140 Leu Pro Ser Pro Ala His Cys Val Gly Val Ile Thr Ser Lys Thr Gly 150 155 Ala Ala Leu His Asp Ile Leu His Val Leu Lys Arg Asp Pro Ser 165 170 Leu Pro Val Ile Ile Tyr Pro Thr Ala Val Gln Gly Asp Asp Ala Pro 180 185 190 Gly Gln Ile Val Arg Ala Ile Glu Leu Ala Asn Ala Arg Gln Glu Cys 200 205 Asp Val Leu Ile Val Gly Arg Gly Gly Gly Ser Leu Glu Asp Leu Trp 215 220 Ser Phe Asn Asp Glu Arg Val Ala Arg Ala Ile Phe Ala Ser Leu Ile 230 235 Pro Val Val Ser Ala Val Gly His Glu Thr Asp Val Thr Ile Ala Asp 250 Phe Val Ala Asp Leu Arg Ala Pro Thr Pro Ser Ala Ala Ala Glu Val 265 Val Ser Arg Asn Gln Glu Leu Leu Arg Gln Ile Gln Asn Gly Gln Gln Arg Leu Glu Met Ala Met Asp Tyr Phe Leu Ala Asn Arg Thr Arg 295 Arg Phe Thr Gln Leu His His Arg Leu Gln Gln His Pro Gln Leu 315 310 Arg Leu Ala Arg Gln Gln Thr Val Leu Glu Arg Leu Arg Gln Arg Met 325 330 Asn Phe Ala Leu Asp Asn Gln Leu Lys Arg Ala Val Ser Arg Gln Gln 345 Arg Met Thr Gln Arg Leu Asn Gln Gln Asn Pro Gln Pro Lys Val Tyr 360 365 Arg Ala Gln Thr Arg Ile Gln Gln Leu Glu Tyr Arg Leu Ala Glu Asn 375 380 Ile Arg Ser Arg Leu Ser Ala Thr Arg Glu Arg Phe Gly Asn Ala Val 390 395 Thr His Leu Glu Ala Val Ser Pro Leu Ser Thr Leu Ala Arg Gly Tyr

405 410 415 Ser Val Thr Thr Ala Thr Asp Gly Lys Val Leu Lys Gln Thr Lys Gln 425 420 430 Val Lys Ala Gly Asp Val Leu Thr Thr Arg Leu Ser Asp Gly Trp Val 440 445 Glu Ser Glu Val Lys Glu Ile Lys Pro Val Lys Lys Thr Arg Gln Arg 455 Lys Ser Gly 465 <210> 6819 <211> 369 <212> PRT <213> Enterobacter cloacae <400> 6819 Lys Lys Arg Ala Ser Val Lys Ala Asp Lys Ser Ser Pro Val Thr Asn 10 Tyr Thr Ala Ala Ile Ala Phe Phe Asp Lys Glu Ser Ser Met Pro His 20 25 Leu His Ser Val Ile Pro Pro Tyr Ile Leu Arg Arg Ile Ile Glu Ser 40 Gly Ser Glu Pro Gln Gln Arg Cys Ala Arg Gln Thr Leu Thr His Val 55 Gln Thr Leu Met Ala His Met Pro Gly Lys Pro Ala Ala Pro His Val 70 75 Asn Lys Ala Gly Gln Leu Glu Arg Asp Ile Tyr Asp Ala Lys Gln Thr 90 85 Gln Glu Leu Pro Gly Ser Gln Val Arg Tyr Glu Gly Gln Pro Ser Asn 100 105 110 Gly Asp Val Ala Val Asp Glu Ala Tyr Asp Tyr Leu Gly Ile Thr His 120 125 Asp Phe Phe Trp Lys Glu Tyr Gln Arg Asp Ser Leu Asp Asn Lys Gly 135 140 Leu Ile Leu Thr Gly Thr Val His Tyr Gly Arg Glu Tyr Gln Asn Ala 155 150 Phe Trp Asn Gly Gln Gln Met Val Phe Gly Asp Gly Asp Gly Glu Ile 165 170 Phe Asn Arg Phe Thr Ile Ala Ile Asp Val Val Ala His Glu Leu Ser 180 185 His Gly Val Thr Glu Thr Glu Ala Gly Leu Ile Tyr Phe Glu Gln Ser 200 205 Gly Ala Leu Asn Glu Ser Leu Ser Asp Val Phe Gly Ser Leu Val Lys 215 220 Gln Tyr Tyr Leu Lys Gln Thr Ala Asp Gln Ala Asp Trp Leu Ile Gly 230 235 Glu Gly Leu Leu Ala Ala Gly Ile Asn Gly Lys Gly Leu Arg Ser Met 250 Ser Glu Pro Gly Thr Ala Tyr Asp Asp Pro Leu Leu Gly Lys Asp Pro 265 Gln Pro Ala His Met Lys Asp Phe Ile Lys Thr Arg Glu Asp Asn Gly 280 Gly Val His Leu Asn Ser Gly Ile Pro Asn Arg Ala Phe Tyr Leu Ala 295 300 Ala Thr Ala Ile Gly Gly Tyr Ala Trp Glu Lys Ala Gly Tyr Ala Trp 310 315 Tyr Asp Thr Val Cys Asp Arg Asn Leu Ala Gln Asp Ala Asp Phe Asp 330 325 Ala Phe Ala Lys Leu Thr Ile Ala His Gly Glu Lys Arg Ser Gly Ser 345 Asp Val Gly Ala Ala Ile Lys Gln Ala Trp Glu Gln Val Gly Val Leu

360

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365

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<210> 6820
<211> 145
<212> PRT
<213> Enterobacter cloacae
<400> 6820
Asn Phe Ala Arg Val His Phe Ile Ser Ala Leu His Gly Ser Gly Val
Gly Asn Leu Phe Glu Ser Val Arg Glu Ala Tyr Asp Ser Ser Thr Arg
                                25
Arg Gln Ser Thr Ala Met Leu Thr Arg Ile Met Asn Met Ala Ala Glu
                            40
Asp His Gln Pro Pro Leu Val Arg Gly Arg Arg Val Lys Leu Lys Tyr
                        55
Ala His Ala Gly Gly Tyr Asn Pro Pro Ile Val Val Ile His Gly Asn
                    70
                                        75
Gln Val Lys Asp Leu Pro Asp Ser Tyr Lys Arg Tyr Leu Met Asn Tyr
                85
                                    90
Phe Arg Lys Ser Leu Asp Val Met Gly Thr Pro Ile Arg Ile Gln Phe
                                105
                                                     110
            100
Lys Glu Gly Glu Asn Pro Phe Ala Asn Lys Arg Asn Thr Leu Thr Pro
                            120
                                                 125
Asn Gln Met Arg Lys Arg Lys Arg Leu Ile Lys His Ile Lys Lys Ser
                        135
                                             140
Lys
145
<210> 6821
<211> 533
<212> PRT
<213> Enterobacter cloacae
<400> 6821
Pro Phe Gly Val His Ala Gly Val Tyr Lys His Asp Thr Tyr Leu Phe
                                    10
Gly Arg Ile Met Gln Ser Ser Val Asn Gln Lys Glu Ser Arg Thr Phe
Phe Gly His Pro Tyr Pro Leu Gly Ser Leu Phe Phe Thr Glu Met Trp
Glu Arg Phe Ser Phe Tyr Gly Ile Arg Pro Leu Leu Ile Leu Phe Met
                        55
Ala Ala Thr Val Tyr Asp Gly Gly Met Gly Leu Ala Arg Glu Asn Ala
                    70
                                        75
Ser Ala Ile Val Gly Ile Phe Ala Gly Thr Met Tyr Leu Ala Ala Leu
                                    90
                85
Pro Gly Gly Trp Leu Ala Asp Asn Trp Leu Gly Gln Gln Arg Ala Val
            100
                                105
                                                    110
Trp Tyr Gly Ser Ile Leu Ile Ala Leu Gly His Leu Ser Ile Ala Leu
                                                 125
                            120
Ser Ala Ile Met Gly Asp Asn Leu Phe Phe Ile Gly Leu Met Phe Ile
                        135
                                            140
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Val Leu Gly Ser Gly Leu Phe Lys Thr Cys Ile Ser Val Met Val Gly

Thr Leu Tyr Lys Lys Gly Asp Ala Arg Arg Asp Gly Gly Phe Ser Leu

Phe Tyr Met Gly Ile Asn Met Gly Ser Phe Ile Ala Pro Leu Ile Ser 180 185 190

155

170

Gly Trp Leu Ile Lys Thr His Gly Trp His Trp Gly Phe Gly Ile Gly 200 Gly Ile Gly Met Leu Val Ala Leu Ile Ile Phe Arg Val Phe Ala Val 215 220 Pro Ala Met Lys Arg Tyr Asp Ser Glu Val Gly Leu Asp Ser Thr Trp 230 235 Asn Ser Pro Val Val Lys Arg Asn Gly Val Gly Ala Trp Leu Leu Ala 245 250 Leu Ala Val Gly Val Ala Ile Ile Val Thr Leu Ile Ala Gln Gly Val 265 Ile Val Ile Asn Pro Val Ala Val Ala Ser Val Leu Val Tyr Val Ile 280 Ala Ala Ser Val Ala Leu Tyr Phe Ile Tyr Leu Phe Ile Phe Ala Gly 295 300 Leu Asn Arg Lys Glu Arg Ala Arg Leu Leu Val Cys Phe Ile Leu Leu 310 315 Val Ser Ala Ala Phe Phe Trp Ser Ala Phe Glu Gln Lys Pro Thr Ser 330 325 Phe Asn Leu Phe Ala Asn Asp Tyr Thr Asn Arg Met Ile Gly Asp Phe 345 350 Glu Ile Pro Ala Val Trp Phe Gln Ser Ile Asn Ala Leu Phe Ile Ile 360 Leu Leu Ala Pro Val Phe Ser Trp Ala Trp Pro Lys Leu Ala Ser Lys 370 375 380 Asn Ile Arg Pro Ser Ser Ile Thr Lys Phe Val Ile Gly Ile Leu Cys 395 390 Ala Ala Gly Phe Gly Leu Met Met Leu Ala Ala Gln Asn Val Leu 405 410 Ser Asn Gly Gly Ala Gly Val Ser Pro Phe Trp Leu Val Gly Ser Ile 420 425 Leu Met Leu Thr Leu Gly Glu Leu Cys Leu Ser Pro Ile Gly Leu Ala 440 Thr Met Thr Leu Leu Ala Pro Glu Arg Met Arg Gly Gln Met Met Gly 455 460 Leu Trp Phe Cys Ala Ser Ala Leu Gly Asn Leu Ala Ala Gly Leu Ile 470 475 Gly Gly His Val Lys Ala Asp Gln Leu Asp Met Leu Pro Asp Leu Phe 485 490 Ala Arg Cys Ser Ile Ala Leu Leu Ile Cys Ala Ala Val Leu Ile Val 500 505 Leu Ile Val Pro Val Arg Arg Met Leu Glu Asn Ala Gln Thr Lys Pro 520 Ala Thr Glu Ala 530

<210> 6822

<211> 497

<212> PRT

<213> Enterobacter cloacae

# <400> 6822

Pro Pro Arg Ser Glu Ile Leu Pro Met Leu Arg Ile Ala Lys Glu Ala 10 Leu Thr Phe Asp Asp Val Leu Leu Val Pro Ala His Ser Thr Val Leu 25 Pro Asn Thr Ala Asp Leu Ser Thr Gln Leu Thr Lys Thr Ile Arg Leu 40 Asn Ile Pro Met Leu Ser Ala Ala Met Asp Thr Val Thr Glu Ala Arg 55 60 Leu Ala Ile Ala Leu Ala Gln Glu Gly Gly Ile Gly Phe Ile His Lys 75

Asn Met Ser Ile Glu Arg Gln Ala Glu Glu Val Arg Arg Val Lys Lys 85 90 His Glu Ser Gly Ile Val Ser Asp Pro Gln Thr Val Leu Pro Thr Thr 100 105 Thr Leu His Glu Val Lys Ala Leu Thr Glu Arg Asn Gly Phe Ala Gly 120 125 Tyr Pro Val Val Thr Glu Asp Asn Glu Leu Val Gly Ile Ile Thr Gly 135 140 Arg Asp Val Arg Phe Val Thr Asp Leu Asn Gln Pro Val Ser Val Tyr 155 150 Met Thr Pro Lys Glu Arg Leu Val Thr Val Arg Glu Gly Glu Thr Arg 165 170 Asp Val Val Leu Ala Lys Met His Glu Lys Arg Val Glu Lys Ala Leu 180 185 Val Val Asp Ala Asn Phe His Leu Arg Gly Met Ile Thr Val Lys Asp 200 205 Phe Gln Lys Ala Glu Arg Lys Pro Asn Ala Cys Lys Asp Glu His Gly 215 220 Arg Leu Arg Val Gly Ala Ala Val Gly Ala Gly Ala Gly Asn Glu Gln 235 230 Arg Val Asp Ala Leu Val Ala Ala Gly Val Asp Val Leu Leu Ile Asp 245 250 Ser Ser His Gly His Ser Glu Gly Val Leu Gln Arg Ile Arg Glu Thr 265 270 260 Arg Ala Lys Tyr Pro Asp Leu Gln Ile Ile Gly Gly Asn Val Ala Thr 275 280 Gly Ala Gly Ala Arg Ala Leu Ala Glu Ala Gly Cys Ser Ala Val Lys 300 295 Val Gly Ile Gly Pro Gly Ser Ile Cys Thr Thr Arg Ile Val Thr Gly 310 315 Val Gly Val Pro Gln Ile Thr Ala Val Ser Asp Ala Val Glu Ala Leu 325 330 Glu Gly Thr Gly Ile Pro Val Ile Ala Asp Gly Gly Ile Arg Phe Ser 340 345 350 Gly Asp Ile Ala Lys Ala Ile Ala Ala Gly Ala Ala Ala Val Met Val 360 355 Gly Ser Met Leu Ala Gly Thr Glu Glu Ser Pro Gly Glu Ile Glu Leu 375 380 Tyr Gln Gly Arg Ser Tyr Lys Ser Tyr Arg Gly Met Gly Ser Leu Gly 390 395 Ala Met Ser Lys Gly Ser Ser Asp Arg Tyr Phe Gln Thr Asp Asn Ala 405 410 Ala Asp Lys Leu Val Pro Glu Gly Ile Glu Gly Arg Val Ala Tyr Lys 425 Gly Arg Leu Lys Glu Ile Ile His Gln Gln Met Gly Gly Leu Arg Ser 440 Cys Met Gly Leu Thr Gly Cys Gly Thr Ile Asp Leu Leu Arg Thr Lys 455 Ala Glu Phe Val Arg Ile Ser Gly Ala Gly Ile Gln Glu Ser His Val 470 475 His Asp Val Thr Ile Thr Lys Glu Ser Pro Asn Tyr Arg Leu Gly Ser 490

<sup>&</sup>lt;210> 6823

<sup>&</sup>lt;211> 116

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Ser Ser Ser Leu Phe Arg Tyr Val Ala Cys Trp Lys Met Arg Lys Leu 10 Asn Arg Leu Pro Lys Pro Asp Thr Ile Gln Ser Ala Gly Ala Val Val 25 Leu Ser Arg Pro Asn Ser Thr Gly Glu Ser Met Ser Ile Thr Cys Pro 40 Asp Cys His Ala Ala Leu Glu Pro Gln Asn Gly Ile Ala His Cys Asp 55 Ser Cys Asn Lys Asp Ile Pro Leu Glu Ala Arg Cys Pro Asp Cys His 75 Gln Pro Leu Gln Val Leu Lys Ala Cys Gly Ala Val Asp Tyr Phe Cys 85 90 Gln Asn Gly His Gly Leu Ile Ser Lys Lys Arg Val Glu Phe Val Arg 105 Ala Gly Ala 115

<210> 6824

<211> 562

<212> PRT

<213> Enterobacter cloacae

<400> 6824 Arg Ser Pro Lys Ser Pro Arg Thr Thr Val Trp Ala Pro Asp Lys Phe 10 Pro Arg Pro Ala Gln Cys Arg Ala Leu Cys Phe Val Ser Leu Ala Ser 20 Glu Leu Ala Ser Met Thr Glu Asn Ile His Lys His Arg Ile Leu Ile 45 Leu Asp Phe Gly Ser Gln Tyr Thr Gln Leu Val Ala Arg Arg Val Arg 55 Glu Leu Gly Val Tyr Cys Glu Leu Trp Ala Trp Asp Val Thr Glu Ala 70 75 Gln Ile Arg Glu Phe Asn Pro Ser Gly Ile Ile Leu Ser Gly Gly Pro 90 Glu Ser Thr Thr Glu Glu Asn Ser Pro Arg Ala Pro Gln Tyr Val Phe 105 110 Glu Ala Gly Val Pro Val Phe Gly Val Cys Tyr Gly Met Gln Thr Met 120 Ala Met Gln Leu Gly Gly His Val Glu Gly Ser Asn Glu Arg Glu Phe 135 140 Gly Tyr Ala Gln Val Glu Val Val Thr Asp Ser Ala Leu Val Arg Gly 155 150 Ile Glu Asp Ser Leu Thr Ala Asp Gly Lys Pro Leu Leu Asp Val Trp 170 Met Ser His Gly Asp Lys Val Thr Ala Ile Pro Ser Asp Phe Val Thr 180 Val Ala Ser Thr Glu Ser Cys Pro Phe Ala Ile Met Ala Asn Glu Glu 200 195 Lys Arg Phe Tyr Gly Val Gln Phe His Pro Glu Val Thr His Thr Arg 220 215 Gln Gly Met Arg Met Leu Glu Arg Phe Val Arg Asp Ile Cys Gln Cys 235 230 Glu Ala Leu Trp Thr Pro Ala Lys Ile Ile Asp Asp Ala Val Glu Arg 245 250 Ile Arg Gln Gln Val Gly Asp Asp Lys Val Ile Leu Gly Leu Ser Gly 270 265 260 Gly Val Asp Ser Ser Val Thr Ala Met Leu Leu His Arg Ala Ile Gly 275 280 285 Lys Asn Leu Thr Cys Val Phe Val Asp Asn Gly Leu Leu Arg Leu Asn 295

Glu Ala Lys Gln Val Met Asp Met Phe Gly Asp His Phe Gly Leu Asn 310 315 Ile Val His Val Glu Gly Glu Gln Arg Phe Leu Asp Ala Leu Lys Gly 330 325 Glu Asn Asp Pro Glu Ala Lys Arg Lys Ile Ile Gly Arg Val Phe Val 345 340 Glu Val Phe Asp Glu Glu Ala Leu Lys Leu Glu Asp Val Lys Trp Leu 360 Ala Gln Gly Thr Ile Tyr Pro Asp Val Ile Glu Ser Ala Ala Ser Ala 375 380 Thr Gly Lys Ala His Val Ile Lys Ser His His Asn Val Gly Gly Leu 390 395 Pro Lys Glu Met Lys Met Gly Leu Val Glu Pro Leu Arg Glu Leu Phe 405 410 Lys Asp Glu Val Arg Lys Ile Gly Leu Glu Leu Gly Leu Pro Tyr Asp 420 425 Met Leu Tyr Arg His Pro Phe Pro Gly Pro Gly Leu Gly Val Arg Val 440 445 435 Leu Gly Glu Val Lys Lys Glu Tyr Cys Asp Leu Leu Arg Arg Ala Asp 460 455 Ala Ile Phe Ile Glu Glu Leu His Lys Ala Asp Leu Tyr Asn Lys Val 475 470 Ser Gln Ala Phe Thr Val Phe Leu Pro Val Arg Ser Val Gly Val Met 490 485 Gly Asp Gly Arg Lys Tyr Asp Trp Val Val Ser Leu Arg Ala Val Glu 505 510 500 Thr Ile Asp Phe Met Thr Ala His Trp Ala His Leu Pro Tyr Asp Phe 520 515 Leu Gly Arg Val Ser Asn Arg Ile Ile Asn Glu Val Asn Gly Ile Ser 540 535 Arg Val Val Tyr Asp Ile Ser Gly Lys Pro Pro Ala Thr Ile Glu Trp 550 555 545 Glu

<210> 6825

<211> 170

<212> PRT

<213> Enterobacter cloacae

### <400> 6825

Thr Tyr Ser Ala Asp Leu Pro Ser Tyr Phe Cys Met Gly Cys Val Val 10 Glu Met Phe Ala Leu Thr Tyr Thr Leu Lys Lys Thr Arg Arg His Ser Met Lys Glu Asn Asp Ile Val Glu Ile Leu Thr Thr Arg Ser Ile Ala Leu Val Gly Ala Ser Asp Lys Pro Asp Arg Pro Ser Tyr Arg Val Met Lys Tyr Leu Leu Asp Gln Gly Tyr His Val Ile Pro Val Ser Pro Lys Val Ala Gly Lys Thr Leu Leu Gly Gln Gln Gly Tyr Ala Thr Leu 85 90 Ala Asp Val Pro Glu Lys Val Asp Met Val Asp Val Phe Arg Asn Ser 105 110 Glu Ala Ala Trp Gly Val Ala Gln Glu Ala Ile Ala Ile Gly Ala Lys 120 125 Thr Leu Trp Met Gln Leu Gly Val Ile Asn Glu Gln Ala Ala Val Leu 135 140 Ala Arg Asp Ala Gly Leu Lys Val Val Met Asp Arg Cys Pro Ala Ile 150

## Asp Ile Pro Arg Leu Gly Leu Ala Lys 165 170

<210> 6826 <211> 234 <212> PRT <213> Enterobacter cloacae

Phe Ala Met Val Ser Asp Gly Glu Leu Tyr Leu Arg Ala Cys Glu Gln
65 70 75 80

Ser Ala Lys Tyr Cys Val Lys Asn Ala Ser Ser Phe Leu Thr Leu Met
85 90 95

Lys Arg Gly Arg Pro Val Leu Leu Asn Tyr Tyr Arg Val Asp Glu Gly
100 105 110

Leu Trp Gln Asn Arg Glu Lys Leu Leu Gln Leu Ser Ser Phe Ala Leu
115 120 125

Asp Ala Ala Arg Lys Glu Arg Tyr Gln Arg His Gln Arg Asn Arg Leu 130 135 140 Lys Asp Leu Pro Asn Leu Thr Phe Gln Ile Glu Val Leu Leu Met Glu

145 150 155 160
Ala Gly Ile Thr Asn Glu Glu Thr Leu Arg Gln Leu Gly Ala Lys Thr

Ser Trp Leu Lys Met Arg Ser Lys Asn Lys Ala Leu Ser Ile Arg Val · 180 185 190

Leu Phe Ala Leu Glu Gly Ala Ile Glu Gly Leu His Glu Ala Ala Leu
195 200 205

Pro Ala Asp Ile Arg Arg Glu Leu Thr Glu Trp Phe Asn Ala Leu Pro 210 215 220

Glu Ser Gln Gly His His Ser Ala Arg 225 230

<210> 6827

<211> 692

<212> PRT

<213> Enterobacter cloacae

<400> 6827

Pro Arg Gly Ser Arg Gln Asp Met Glu Leu Lys Ala Thr Ser Met Gly Lys Arg Leu Ala Gln His Pro Tyr Asp Lys Val Val Leu Leu Asn Ala 20 25 Gly Val Lys Val Ser Gly Glu Arg His Glu Tyr Leu Ile Pro Phe Asn 35 40 45 Gln Leu Leu Ala Ile His Cys Lys Arg Gly Leu Val Trp Gly Glu Leu 55 60 Glu Phe Val Leu Pro Ala Asp Lys Val Val Arg Leu His Gly Thr Glu 70 75 Trp Ala Glu Thr Gln Arg Phe His Tyr His Leu Asn Thr Arg Trp Gln 90 Gln Trp Ser Gln Glu Met Ser Val Ile Ala Ala Gln Val Leu Gln Gln 105 Val Leu Asp Asp Ile Ala Leu Ser Asn Thr Gln Gln Lys Trp Leu Thr

120 125 115 Arg Gln Gln Thr Ala Gly Leu Gln His Lys Ile Ala Gln Ala Leu Thr 135 140 Ala Leu Pro Leu Pro Val Ala Arg Leu Glu Phe Asp Asn Cys Arg 150 155 Asp Ala Trp Arg Lys Cys Gln Ala Trp Leu Asn Asp Ile Glu Lys Ser 170 165 Arg Leu Ala His Asn Gln Ala Trp Thr Glu Ala Met Leu Thr Gln Tyr 180 185 Ala Asp Phe Phe Ser Thr Val Glu Ser Ser Pro Leu Asn Pro Ala Gln 200 205 Ala Arg Ala Val Val Asn Gly Glu Gln Ser Leu Leu Val Leu Ala Gly 215 220 Ala Gly Ser Gly Lys Thr Ser Val Leu Val Ala Arg Ala Gly Trp Leu 230 235 Leu Thr Thr Gly Glu Ala Val Ala Asp Gln Ile Leu Leu Leu Ala Phe 245 250 Gly Arg Lys Ala Ala Gln Glu Met Asp Glu Arg Ile Gln Ala Arg Leu 265 260 His Thr Gln Asp Ile Ser Ala Arg Thr Phe His Ser Leu Ala Leu His 280 285 Ile Ile Gln Gln Gly Ser Lys Lys Val Pro Val Val Ser Lys Leu Glu 295 300 Asn Asp Ala Gln Ala Arg Gln Thr Leu Phe Ile Lys Ala Trp Arg Gln 315 310 Gln Cys Ser Glu Lys Lys Ala Gln Ala Lys Gly Trp Arg Gln Trp Leu 325 330 Glu Glu Glu Leu Asn Trp Glu Val Pro Glu Gly Ser Phe Trp Gln Asp 340 345 Glu Lys Leu Ala Arg Arg Leu Gly Ser Arg Leu Asp Arg Trp Val Ser 355 360 365 Leu Met Arg Met His Gly Gly Ser Gln Ala Glu Met Ile Glu Ser Ala 375 380 Pro Glu Ser Ile Arg Ala Val Phe Ser Lys Arg Val Lys Leu Met Ala 395 390 Pro Met Leu Lys Ala Trp Lys Thr Ala Leu Lys Asp Glu Asn Ala Val 405 410 Asp Phe Ser Gly Leu Ile His Gln Ala Ile Ile Ile Leu Glu Lys Gly 420 425 Arg Phe Val Ser Pro Trp Lys His Ile Leu Val Asp Glu Phe Gln Asp 440 Ile Ser Pro Gln Arg Ala Ala Leu Leu Ser Ala Leu Arg Ala Gln Asn 455 Lys His Thr Ser Leu Phe Ala Val Gly Asp Asp Trp Gln Ala Ile Tyr 470 475 Arg Phe Ser Gly Ala Gln Leu Ser Leu Thr Thr Ala Phe His His Tyr 490 Phe Gly Glu Gly Asp Arg Ser Asp Leu Asp Thr Thr Tyr Arg Phe Asn 505 Ser Arg Ile Gly Glu Ile Ala Asn Arg Phe Ile Gln Gln Asn Pro His 520 Gln Leu Ser Lys Pro Leu Asn Ser Leu Arg Ser Gly Asp Lys Lys Ala 535 540 Val Thr Leu Leu Ala Asp Asp Gln Leu Glu Pro Leu Leu Asp Lys Leu 550 555 Ser Gly Tyr Ala Lys Pro Asp Glu Arg Ile Leu Val Leu Ala Arg Tyr 565 570 His His Leu Lys Pro Thr Ala Leu Glu Lys Ala Ala Thr Arg Trp Pro 580 585 Lys Leu Gln Leu Asp Phe Met Thr Ile His Ala Ser Lys Gly Gln Gln 600

2927 Ala Asp Tyr Val Ile Val Val Gly Leu Lys Glu Gly Ser Asp Gly Phe 615 620 Pro Ala Pro Ala Arg Glu Ser Val Met Glu Glu Ala Leu Leu Pro Val 630 635 Pro Glu Asp Phe Pro Asp Ala Glu Glu Arg Arg Leu Leu Tyr Val Ala 645 650 Ile Thr Arg Ala Arg His Arg Val Trp Leu Leu Phe Asn Lys Glu Glu 665 Pro Ser Val Phe Val Asp Ile Leu Lys Ser Ile Asp Val Pro Val Ala 680 Arg Lys Pro 690 <210> 6828 <211> 253 <212> PRT <213> Enterobacter cloacae <400> 6828 Gly Gln Ile Gly Arg Ile Cys Leu Tyr Val Ser Lys Arg Val Tyr Arg 10 Lys Ile Leu Ile His Ser Tyr Arg Val Val Cys Leu Gln Glu Ser Ala 20 25 Met Lys Thr Gly Ile Ala Trp Ala Val Val Ala Leu Ile Met Pro Val 40 Cys Val Phe Ala Thr Thr Leu Arg Leu Thr Thr Asp Ile Asp Leu Leu 55 60 Val Leu Asp Gly Lys Lys Val Ser Ser Ser Leu Leu Arg Gly Ala Asp 70 75 Ser Ile Glu Leu Asp Asn Gly Pro His Gln Leu Val Phe Arg Val Glu 85 90 Lys Thr Ile Arg Leu Ala Asp Asp Glu Gln Gln Val Tyr Ile Ser Pro 100 105 110 Pro Leu Val Val Ser Phe Asn Thr Gln Arg Ile Ser Gln Val Asn Phe 120 125 Arg Leu Pro Arg Leu Glu Thr Glu Lys Glu Ser Leu Ala Phe Asp Ala 135 140 Ser Pro Arg Ile Glu Leu Val Asp Gly Asp Ser Met Pro Ile Pro Val 155 150 Lys Leu Asp Ile Leu Ala Leu Thr Lys Arg Pro Lys Gly Thr Asp Tyr 170 175 Glu Ala Asp Thr Glu Thr Tyr Asn Arg Ala Ser Arg Arg Ala Ser Leu 190 180 185 Pro Gln Phe Ala Thr Met Met Ala Asp Asp Ser Thr Leu Leu Ser Gly 195 200 Val Ser Glu Leu Asp Val Leu Pro Pro Gln Ser Gln Thr Leu Thr Glu 220 215 Gln Arg Leu Lys Phe Trp Phe Gln Asn Ala Asp Pro Asp Thr Arg Ala 230 235 Arg Phe Leu Gln Trp Ala Lys Gln Gln Pro Ser Ser 245 <210> 6829 <211> 85 <212> PRT <213> Enterobacter cloacae <400> 6829 Cys Val Lys Arg Gly Ser Gly Thr Cys Ala Pro Arg Tyr Pro Gly Tyr

10

Ala Asn Ala Pro Glu Cys Ala His Pro Ser Pro Ala Pro Pro Cys Asp

| Second

<210> 6830 <211> 399

<212> PRT

<213> Enterobacter cloacae

<400> 6830

Gln Ile Met Ser Val Arg Leu Val Leu Ala Lys Gly Arg Glu Lys Ser Leu Leu Arg Arg His Pro Trp Val Phe Ser Gly Ala Val Ala Arg Met 25 Glu Gly Lys Ala Ser Leu Gly Glu Thr Ile Asp Ile Val Asp His Gln 35 Gly Lys Trp Leu Ala Arg Gly Ala Tyr Ser Pro Ala Ser Gln Ile Arg 55 Ala Arg Val Trp Thr Phe Asp Lys Glu Glu Ala Ile Asp Ile Asp Phe 70 75 Phe Val Arg Arg Leu Gln Gln Ala Gln Gln Trp Arg Glu Trp Leu Ala 85 90 Lys Arg Asp Gly Leu Asp Ser Tyr Arg Leu Ile Ala Gly Glu Ser Asp 100 105 Gly Leu Pro Gly Val Thr Ile Asp Arg Phe Gly Asn Phe Leu Val Leu 120 125 Gln Leu Leu Ser Ala Gly Ala Glu Tyr Gln Arg Ala Ala Leu Ile Ser 135 140 Ala Leu Gln Thr Leu Phe Pro Glu Cys Ala Ile Tyr Asp Arg Ser Asp 150 155 Val Ala Val Arg Lys Lys Glu Gly Met Glu Leu Thr Gln Gly Pro Val 165 170 Thr Gly Glu Leu Pro Pro Ala Leu Leu Pro Ile Glu Glu His Gly Met 180 185 Lys Leu Leu Val Asp Ile Gln Gly Gly His Lys Thr Gly Tyr Tyr Leu 200 205 Asp Gln Arg Asp Ser Arg Leu Ala Thr Arg Gln Tyr Val Ala Asp Arg 215 220 Arg Val Leu Asn Cys Phe Ser Tyr Thr Gly Gly Phe Ala Val Ser Ala 230 235 Leu Met Gly Gly Cys Ala Gln Val Val Ser Val Asp Thr Ser Gln Glu 250 Ala Leu Asp Val Ala Lys Gln Asn Val Glu Leu Asn Lys Leu Asp Leu Ser Lys Ala Glu Phe Val Arg Asp Asp Val Phe Lys Leu Leu Arg Lys 280 Tyr Arg Asp Gln Gly Glu Lys Phe Asp Val Ile Val Met Asp Pro Pro 295 300 Lys Phe Val Glu Asn Lys Ser Gln Leu Met Gly Ala Cys Arg Gly Tyr 310 315 Lys Asp Ile Asn Met Leu Ala Ile Gln Leu Leu Asn Pro Gly Gly Val 330 325 Leu Leu Thr Phe Ser Cys Ser Gly Leu Met Thr Thr Asp Leu Phe Gln 345 Lys Ile Ile Ala Asp Ala Ala Ile Asp Ala Gly Arg Asp Val Gln Phe

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360
Ile Glu Gln Phe Arg Gln Ala Ala Asp His Pro Val Ile Ala Thr Tyr
                       375
                                            380
Pro Glu Gly Leu Tyr Leu Lys Gly Phe Ala Cys Arg Val Met
                    390
                                        395
<210> 6831
<211> 116
<212> PRT
<213> Enterobacter cloacae
<400> 6831
Cys Val Cys Asn Val Ser Arg Glu Val Thr Met Ile Ala Ser Lys Phe
                                    10
Gly Ile Gly Gln Gln Val Arg His Thr Leu Leu Gly Tyr Leu Gly Val
                                25
Val Val Asp Ile Asp Pro Glu Tyr Ser Leu Asp Glu Pro Ser Ala Asp
Asp Leu Ala Val Asp Ala Glu Leu Arg Ala Ala Pro Trp Tyr His Val
                        55
Val Met Glu Gly Asp Asp Gly Gln Pro Val His Thr Tyr Leu Ala Glu
                    70
                                        75
Ala Gln Leu Ser Gly Glu Leu Gln Asp Glu His Pro Glu Gln Pro Thr
                                    90
                8.5
Met Asp Glu Leu Ala Gln Thr Ile Arg Lys Gln Leu Gln Ala Pro Arg
                                105
Leu Arg Asn
       115
<210> 6832
<211> 151
<212> PRT
<213> Enterobacter cloacae
<400> 6832
Gly Phe Met Arg Thr Val Leu Asn Val Leu Asn Phe Val Leu Gly Gly
                                    10
Phe Ala Thr Thr Leu Ser Trp Leu Phe Ala Thr Leu Val Ser Ile Val
Leu Ile Phe Thr Leu Pro Leu Thr Arg Ser Cys Trp Glu Ile Thr Lys
Leu Ser Leu Val Pro Tyr Gly Asn Glu Ala Val His Val Asp Glu Leu
                        55
Glu Pro Glu Arg Lys Asn Ala Leu Met Asn Thr Gly Gly Thr Leu Leu
                    70
Asn Ile Leu Trp Leu Ile Phe Phe Gly Trp Trp Leu Cys Leu Met His
                                    90
Ile Phe Ala Gly Ile Ala Gln Cys Ile Thr Ile Ile Gly Ile Pro Val
                                105
Gly Ile Ala Asn Phe Lys Ile Ala Thr Ile Ala Leu Trp Pro Val Gly
                            120
                                                 125
Arg Arg Val Val Pro Val Glu Val Ala Gln Ala Ala Arg Glu Ala Asn
                        135
Ala Arg Arg Phe Gln
<210> 6833
<211> 726
<212> PRT
<213> Enterobacter cloacae
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<400> 6833 Gly Leu Ala Ala Leu Met Leu Ser Pro Leu Leu Arg Arg Tyr Thr Trp 10 Asn Ser Asn Trp Leu Tyr Asn Val Arg Ile Phe Ile Ala Leu Cys Gly 25 Thr Val Ala Leu Pro Trp Trp Leu Asn Asp Val Lys Leu Thr Ile Pro 40 Leu Thr Leu Gly Val Val Ala Gly Ala Leu Ala Asp Leu Asp Asp Arg 55 Leu Ala Gly Arg Leu Arg Asn Leu Val Ile Thr Leu Val Cys Phe Phe 75 70 Ile Ala Ser Ala Ser Val Glu Leu Leu Phe Pro Trp Pro Trp Leu Phe Ala Leu Gly Leu Thr Val Ser Thr Ser Gly Phe Ile Leu Leu Gly Gly 105 Leu Gly Gln Arg Tyr Ala Thr Ile Ala Phe Gly Ala Leu Leu Ile Ala 120 Ile Tyr Thr Met Leu Gly Val Ser Leu Tyr Glu Gln Trp Tyr Gln Gln 135 140 Pro Val Leu Leu Met Leu Gly Ala Ile Trp Tyr Asn Leu Leu Thr Leu 150 155 Thr Gly His Leu Ile Phe Pro Val Arg Ala Leu Gln Asp Asn Ile Ala 165 170 Arg Ser Tyr Glu Gln Leu Ala His Tyr Leu Glu Leu Lys Ser Arg Leu 180 185 Phe Asp Pro Asp Ile Glu Glu Asp Ser Gln Ala Pro Leu Tyr Asp Leu 200 Ala Leu Ala Asn Gly Gln Leu Val Ala Thr Leu Asn Gln Thr Lys Ala 215 Ser Leu Leu Thr Arg Leu Arg Gly Asp Arg Gly Gln Arg Gly Thr Arg 230 235 Arg Thr Leu His Tyr Tyr Phe Val Ala Gln Asp Ile His Glu Arg Ala 250 Ser Ser Ser His Val Gln Tyr Ala Asp Leu Arg Glu Lys Phe Arg Tyr 265 Ser Asp Val Met Phe Arg Phe Gln Arg Leu Leu Ser Met Gln Ser Gln Ala Cys Gln Gln Leu Ala Arg Ser Ile Leu Leu Arg Thr Pro Tyr Gln 295 300 His Asp Pro Cys Phe Glu Arg Ala Phe Ser His Leu Asp Ala Ala Leu 310 315 Asp Arg Val Gln Ala Ser Gly Thr Ser Pro Glu Gln Phe Lys Ala Leu 330 325 Gly Phe Leu Leu Asn Asn Leu Arg Ala Ile Asp Ala Gln Leu Ala Thr 345 Ile Glu Ser Glu Gln Ala Met Ala Met Pro Gly Asn Asp Ala Asp Asn 360 Gln Leu Ala Asp Asp Ser Leu Asn Gly Phe Ser Asp Met Trp Leu Arg 380 375 Leu Ser Arg His Phe Thr Pro Glu Ser Ala Leu Phe Arg His Ala Val 390 395 Arg Met Ser Leu Val Leu Cys Val Gly Tyr Ala Phe Ile Gln Ile Thr 410 Gly Leu His His Gly Tyr Trp Ile Leu Leu Thr Ser Leu Phe Val Cys 425 Gln Pro Asn Tyr Asn Ala Thr Arg His Arg Leu Ala Leu Arg Ile Val 440 Gly Thr Leu Val Gly Val Ala Ile Gly Leu Pro Val Leu Tyr Phe Val 455 460 Pro Ser Val Glu Gly Gln Leu Leu Leu Ile Val Ile Thr Gly Val Leu 470 475

Phe Phe Ala Phe Arg Asn Val Gln Tyr Ala His Ala Thr Met Phe Ile 485 490 Thr Leu Leu Val Leu Leu Cys Phe Asn Leu Leu Gly Glu Gly Phe Glu 505 500 Val Ala Leu Pro Arg Val Ile Asp Thr Leu Ile Gly Cys Ala Ile Ala 520 525 Trp Ala Ala Val Ser Phe Ile Trp Pro Asp Trp Arg Phe Arg Asn Leu 535 540 Pro Arg Val Ser Asp Arg Ala Met Asn Ala Asn Cys Arg Tyr Leu Asp 550 555 Ala Ile Leu Glu Gln Tyr His Gln Gly Arg Asp Asn Arg Leu Ala Tyr 570 565 Arg Ile Ala Arg Arg Asp Ala His Asn Thr Asp Ala Glu Leu Ala Ser 585 Val Val Ser Asn Met Ser Thr Glu Pro Arg Ala Thr Ala Glu Ile Arg 600 Glu Thr Ala Phe Arg Leu Leu Cys Leu Asn His Thr Phe Thr Ser Tyr 615 620 Ile Ser Thr Leu Gly Ala His Arg Glu Lys Leu Thr Asn Pro Asp Ile 635 630 Leu Ala Leu Leu Asp Asp Ala Val Cys Tyr Val Asp Asp Ala Leu His 645 650 His Gln Pro Ala Asp Glu Pro Arg Val His Gln Ala Leu Asp Glu Leu 660 665 Val Gln Arg Ile Ala His Leu Asp Pro Gly Thr Asp Asn Lys Ala Pro 675 680 685 Leu Val Leu Gln Gln Ile Gly Leu Leu Ile Ala Leu Leu Pro Glu Ile 695 700 Cys Arg Leu Arg Gln Gln Ile Ala Thr Trp Arg Asn Asp Gly Pro Ala 715 710 Thr Gln Ala Ala His 725

<210> 6834

<211> 161

<212> PRT

<213> Enterobacter cloacae

# <400> 6834

Arg Gly Asn Leu Thr Asp Lys Ile Met Glu Leu Thr Thr Arg Thr Leu 10 Pro Ala Arg Lys His Ile Ala Leu Val Ala His Asp His Cys Lys Gln 20 Met Leu Leu Asn Trp Val Arg Arg His Gln Pro Leu Leu Gln His His Ala Leu Ser Ala Thr Gly Thr Thr Gly Asn Leu Ile His Arg Glu Thr 55 Gly Leu Glu Val Asn Ala Met Leu Ser Gly Pro Met Gly Gly Asp Gln 70 75 Gln Val Gly Ala Gln Ile Ser Glu Gly Lys Ile Asp Val Leu Ile Phe 90 Phe Trp Asp Pro Leu Asn Ala Val Pro His Asp Pro Asp Val Lys Ala 105 Leu Leu Arg Leu Ala Thr Val Trp Asn Ile Pro Val Ala Thr Asn Leu 120 125 Ser Thr Ala Asp Phe Ile Ile Glu Ser Pro Gln Phe Asn Asp Pro Val 135 140 Glu Ile Leu Ile Pro Asp Tyr Gln Arg Tyr Leu Ala Glu Arg Leu Lys 150 155

<210> 6835 <211> 224 <212> PRT <213> Enterobacter cloacae <400> 6835 Gly Asp Lys Met Lys Lys Ar

Gly Asn Lys Met Lys Lys Arg Val Leu Val Ile Ala Ala Leu Val Ser Gly Ala Leu Ala Val Ser Gly Cys Thr Thr Asn Pro Tyr Thr Gly Glu Arg Glu Ala Gly Lys Ser Gly Ile Gly Ala Gly Ile Gly Ser Leu Val Gly Ala Gly Val Gly Val Leu Ser Ser Lys, Lys Asp Arg Gly Lys 55 Gly Ala Leu Ile Gly Ala Ala Ala Gly Ala Ala Leu Gly Gly Gly Val 70 75 Gly Tyr Tyr Met Asp Val Gln Glu Ala Lys Leu Arg Asp Lys Met Lys 90 85 Gly Thr Gly Val Ser Val Thr Arg Ser Gly Asp Asn Ile Ile Leu Asn 105 100 Met Pro Asn Asn Val Thr Phe Asp Ser Ser Ser Ala Thr Leu Lys Pro 120 125 Ala Gly Ala Asn Thr Leu Thr Gly Val Ala Ala Val Leu Lys Glu Tyr 135 140 Asn Lys Thr Ala Val Asn Val Ile Gly Tyr Thr Asp Ser Thr Gly Ser 150 155 Gln Asp Leu Asn Met Arg Leu Ser Gln Gln Arg Ala Asp Ser Val Ala 170 Ser Ser Leu Ile Thr Gln Gly Val Glu Ala Asn Arg Ile Arg Thr Ser 185 190 Gly Met Gly Pro Ala Asn Pro Ile Ala Ser Asn Ser Thr Ala Glu Gly 200 Lys Ala Gln Asn Arg Arg Val Glu Ile Thr Leu Ser Pro Val Gln 215

<210> 6836 <211> 195 <212> PRT

<400> 6836

<213> Enterobacter cloacae

Pro Met Gln Arg Cys Gly Trp Val Ser Gln Asp Gln Leu Tyr Ile Asp Tyr His Asp Lys Glu Trp Gly Val Pro Glu Thr Asp Gly Lys Lys Leu Phe Glu Met Ile Cys Leu Glu Gly Gln Gln Ala Gly Leu Ser Trp Ile 40 Thr Val Leu Lys Lys Arg Glu Asn Tyr Arg Lys Ala Phe His Gln Phe 55 Asp Pro Ala Ala Val Ala Ala Met Thr Asp Asp Asp Val Gln Lys Leu 75 70 Val Leu Asp Thr Gly Ile Ile Arg His Arg Gly Lys Ile Gln Ala Ile 85 90 Ile Gly Asn Ala Arg Ala Tyr Leu Ala Met Glu Gln Asn Gly Glu Pro 100 105 Phe Ser Ala Phe Val Trp Ser Phe Val Asp Asn Glu Pro Lys Val Thr 120 125 Gln Ala Ala Thr Leu Ala Glu Ile Pro Thr Ser Thr Pro Ala Ser Asp

Ala Leu Ser Lys Ala Leu Lys Lys Arg Gly Phe Lys Phe Val Gly Thr

140

150 155 Thr Ile Cys Tyr Ser Phe Met Gln Ala Cys Gly Leu Val Asn Asp His 165 170 Ile Thr Gly Cys Phe Cys His Pro Glu Gly His His Asp Pro Gln Met 180 185 Ala Lys 195 <210> 6837 <211> 390 <212> PRT <213> Enterobacter cloacae <400> 6837 Lys Gln Asn Gly Asn Pro Val Ala Val Leu Val Phe Ala Pro Ser Pro 10 Val Gly Glu Gly Trp Gly Glu Gly Ile Arg Pro Pro Pro Gly Lys Leu 25 Leu Asp Ser Pro Asp Phe Pro Ala Lys Val Phe Ser Leu Asn Ser Gly Lys Ser Ala Met Ile Lys Pro Thr Arg Ala Thr Ile Ser Asp Val Ala 55 Lys Ala Ala Lys Thr Gly Lys Thr Ser Ile Ser Arg Tyr Leu Asn Gly 70 75 Glu Lys His Leu Leu Ser Asp Ala Leu Leu Ala Arg Ile Glu Gln Ala 85 90 Ile Ala Asp Leu Asp Tyr Arg Pro Ser Leu Met Ala Arg Gly Leu Lys 100 105 110 Arg Gly Arg Thr Arg Leu Ile Gly Leu Ile Ile Ala Asp Ile Thr Asn 115 120 125 Pro Tyr Ser Val Asn Val Leu Ser Gly Ile Glu Ala Ala Cys Arg Glu 135 140 Lys Gly Phe Thr Pro Leu Val Cys Asn Thr Asn Asn Glu Val Asp Gln 150 155 Glu Leu His Tyr Leu Asp Leu Leu Arg Ser Tyr Gln Val Glu Gly Ile 165 170 175 Val Val Asn Ala Val Gly Met Arg Glu Glu Gly Leu Asn Arg Leu Gln 180 185 190 Gln Ser Ser Leu Pro Met Val Leu Ile Asp Arg Lys Ile Pro Glu Phe 200 205 Ala Cys Asp Val Val Gly Leu Asp Asn Thr Gln Ala Ala Thr Thr Ala 215 220 Thr Glu His Leu Ile Glu Gln Gly Phe Glu Ala Ile Leu Phe Leu Ser 230 235 Glu Pro Leu Gly Met Val Asn Thr Arg Arg Asp Arg Leu Ala Ala Phe 245 250 Arg Ala Thr Leu Ala Arg Tyr Pro Gly Val Ile Ala Glu Asn Ala Glu 265 Ile Pro Leu His Glu Ala Gly Gln Leu Asp Asn Thr Leu Arg Gln Phe 280 285 His Thr Arg His Arg Gly Met Arg Lys Ala Val Ile Ser Ala Asn Gly 295 300 Ala Leu Thr Leu Gln Val Ala Arg Ser Leu Lys Arg Ile Gly Leu His 310 315 Trp Gly Ser Asp Ile Gly Leu Leu Gly Phe Asp Glu Leu Glu Trp Ala 330 325 Glu Leu Ala Gly Val Gly Ile Thr Thr Leu Lys Gln Pro Thr Trp Gln 350 345 Ile Gly Tyr Ala Ala Val Glu Gln Val Val Arg Arg Ile Glu Gly Thr 355 360 365

Arg Asp Ala Val Arg Glu Gln Val Phe Ser Gly Glu Leu Ile Val Arg

375 380 370 Gly Ser Thr Ala Arg 385 <210> 6838 <211> 314 <212> PRT <213> Enterobacter cloacae <400> 6838 Thr Met His Lys Thr Leu Asp Val Ile Thr Ile Gly Glu Ala Met Ala Met Phe Val Ala Thr Glu Thr Gly Glu Leu Ser Ala Val Glu His Phe 25 Ile Lys Arg Val Ala Gly Ala Glu Leu Asn Val Ala Thr Gly Leu Ala Arg Leu Gly Leu Asn Val Gly Trp Val Ser Arg Val Gly Asn Asp Ser 55 Phe Gly His Phe Val Leu Asp Ser Leu Lys Lys Glu Gly Ile Asp Ala 75 70 Ala Gly Val Thr Leu Asp Gly Arg Phe Pro Thr Gly Phe Gln Leu Lys 85 90 Ser Lys Val Glu Asn Gly Thr Asp Pro Ile Val Glu Tyr Phe Arg Lys 100 105 Gly Ser Ala Ala Ser His Leu Ser Val Asp Asp Tyr His Ala Ala Tyr 120 125 115 Phe Ser Ser Ala Arg His Leu His Leu Ser Gly Val Ala Ala Leu 135 140 Ser Ala Ser Ser Tyr Asp Leu Leu Asp His Ala Ala Ser Ala Met Lys 150 155 Ala Gln Gly Lys Thr Ile Ser Phe Asp Pro Asn Leu Arg Pro Val Leu 165 170 Trp Lys Ser Glu Ala Glu Met Ala Glu Lys Leu Asn Arg Leu Ala Phe 185 190 Gln Ala Asp Trp Val Leu Pro Gly Ile Lys Glu Gly Met Ile Leu Thr 195 200 205 Gly Glu Ser Thr Pro Glu Gly Ile Ala Asp Phe Tyr Leu Asn Arg Gly 215 220 Val Lys Ala Val Val Leu Lys Thr Gly Ala Asp Gly Ala Trp Phe Lys 230 235 Thr Ala Asp Gly Glu Gln Gly Ala Val Ala Ala Val Lys Val Asp Asn 245 250 Val Ile Asp Thr Val Gly Ala Gly Asp Gly Phe Ala Val Gly Val Ile 265 270 Ser Ala Leu Leu Glu Gly Lys Pro Leu Ser Gln Ala Val Ala Arg Gly 280 Asn Lys Ile Gly Ser Leu Ala Ile Gln Val Gln Gly Asp Ser Glu Gly 295 Leu Pro Thr Arg Ala Glu Leu Gly Val 310 <210> 6839

<211> 446

<212> PRT

<213> Enterobacter cloacae

<400> 6839

Ala Thr Val Tyr Pro Thr Asp Asn Gly Gly Asn Asn Leu Asn Asn Arg 10 Gly Lys Pro Met Asn Ser Ser Thr Asn Ala Val Lys Arg Trp Trp Tyr 25

Ile Met Pro Ile Val Phe Ile Thr Tyr Ser Leu Ala Tyr Leu Asp Arg 40 Ala Asn Phe Ser Phe Ala Ser Ala Ala Gly Ile Asn Glu Asp Leu Gly 55 Ile Thr Lys Gly Val Ser Ser Leu Leu Gly Ala Leu Phe Phe Leu Gly 70 75 Tyr Phe Phe Phe Gln Ile Pro Gly Ala Ile Tyr Ala Glu Arg Arg Ser 85 90 Val Arg Lys Leu Ile Phe Ile Cys Leu Ile Leu Trp Gly Ala Cys Ala 105 100 Ser Leu Thr Gly Val Val Asn Asn Ile Pro Ala Leu Ala Ala Ile Arg 120 Phe Ile Leu Gly Val Val Glu Ala Ala Val Met Pro Ala Met Leu Ile 135 Tyr Ile Ser Asn Trp Phe Thr Lys Ser Glu Arg Ser Arg Ala Asn Thr 150 155 Phe Leu Ile Leu Gly Asn Pro Val Thr Val Leu Trp Met Ser Val Val 165 170 Ser Gly Tyr Leu Ile Gln Ser Phe Gly Trp Arg Glu Met Phe Ile Ile 185 Glu Gly Val Pro Ala Ile Ile Trp Ala Phe Cys Trp Trp Val Leu Val 200 205 Lys Asp Lys Pro Ala Gln Ala Lys Trp Leu Ser Glu Asp Glu Lys Ala 215 220 Ala Leu Gln Ala Gln Leu Asp Lys Glu Gln Gln Gly Leu Lys Ala Val 230 235 Arg Asn Tyr Gly Glu Ala Phe Arg Ser Arg Asn Val Ile Leu Leu Cys 245 250 Ala Gln Tyr Phe Thr Trp Ser Ile Gly Val Tyr Gly Phe Val Leu Trp 265 270 Leu Pro Ser Ile Ile Arg Ser Gly Gly Glu Asn Leu Gly Met Val Glu 275 280 285 Val Gly Trp Leu Ser Ser Val Pro Tyr Leu Ala Ala Thr Ile Ala Met 295 300 Ile Ile Val Ser Trp Ala Ser Asp Lys Leu Gln Asn Arg Lys Leu Phe 310 315 Val Trp Pro Leu Leu Ile Ala Ala Phe Ala Phe Ile Gly Ser Trp 330 325 335 Ala Val Gly Ala Asn His Phe Trp Val Ser Tyr Thr Leu Leu Val Ile 340 345 Ala Gly Ala Ala Met Tyr Ala Pro Tyr Gly Pro Phe Phe Ala Ile Ile 360 365 Pro Glu Met Leu Pro Arg Asn Val Ala Gly Gly Ala Met Ala Leu Ile 375 380 Asn Ser Met Gly Ala Leu Gly Ser Phe Phe Gly Ser Trp Phe Val Gly 390 395 Tyr Leu Asn Gly Ala Thr Gly Ser Pro Ser Ala Ser Tyr Ile Phe Met 410 Gly Val Ala Leu Phe Ala Ser Val Trp Leu Thr Leu Ile Val Lys Pro 425 Ala Asn Asn Gln Gln Leu Pro Val Gly Ala Arg His Ala 435 440 <210> 6840 <211> 334 <212> PRT <213> Enterobacter cloacae <400> 6840

Ile Leu Leu Lys Ser Thr Glu Ile Ser Met Lys Pro Ser Val Ile Leu

Tyr Lys Ala Leu Pro Glu Asp Leu Gln Lys Arg Leu Glu Glu His Phe 25 Thr Val Thr Arg Val Lys Asn Leu Ser Pro Glu Thr Val Ala Gln His 40 Ala Asp Ala Phe Ala Ser Ala Glu Gly Leu Leu Gly Ser Ser Glu Lys 55 60 Val Asp Ala Ala Leu Leu Glu Lys Met Pro Lys Leu Arg Ala Thr Ser 70 75 Thr Val Ser Val Gly Tyr Asp Asn Phe Asp Val Asp Ala Leu Asn Ala 90 Pro Asn Ile Leu Leu Met His Thr Pro His Ala Leu Thr Glu Thr Val 100 105 Ala Asp Thr Leu Asn Ala Leu Val Leu Asn Thr Ala Arg Pro Val Met 120 Glu Ile Gly Glu Arg Val Lys Ala Gly Glu Trp Thr Lys Ser Ile Gly 135 140 Pro Asp Trp Phe Gly Val Asp Val His Gly Lys Thr Leu Gly Ile Val 150 155 Gly Met Gly Arg Ile Gly Leu Ala Leu Ala Gln Arg Ala His Phe Gly 165 170 Phe Asn Met Pro Ile Leu Tyr Asn Ala Arg Arg His His Ser Glu Ala 180 185 Glu Glu Arg Phe Asn Ala Leu Tyr Cys Glu Leu Asp Thr Leu Leu Arg 205 200 Glu Ala Asp Phe Val Cys Leu Ile Leu Pro Leu Thr Asp Glu Thr Arg 215 His Leu Ile Gly Lys Ala Ala Phe Glu Lys Met Lys Lys Ser Ala Ile 230 235 Phe Ile Asn Ala Gly Arg Gly Pro Val Val Asp Glu Lys Ala Leu Ile 245 250 Glu Ala Leu Gln Asn Gly Glu Ile His Ala Ala Gly Leu Asp Val Phe 265 Glu Gln Glu Pro Leu Pro Val Asp Ser Pro Leu Leu Thr Met Pro Asn 280 Val Val Ala Leu Pro His Ile Gly Ser Ala Thr His Glu Thr Arg Tyr 295 300 Asn Met Ala Ala Thr Ala Val Asp Asn Leu Ile Ala Ala Leu Gly Gly Lys Val Asp Lys Asn Cys Val Asn Pro Gln Ile Gln Gln

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<210> 6841
<211> 169
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<212> PRT

<213> Enterobacter cloacae

### <400> 6841

 Leu
 Phe
 His
 Leu
 Arg
 Glu
 Gln
 Gln
 His
 Val
 Ile
 Asn
 Val
 Leu
 Asn
 Leu
 Ile
 Asn
 Leu
 Ala
 Val
 Gly
 Asn
 Leu
 Leu
 Ala
 Val
 Gly
 Asn
 Leu
 Leu
 Ala
 Val
 Gly
 Arg
 Ile
 Arg
 Asn
 Leu
 Thr
 Leu
 His
 Gly
 Glu
 Gln
 Ile
 Ile
 Asn
 Ser
 Lys
 His
 Val
 Leu
 Phe
 Asn
 Ser
 Lys
 His
 Asn
 Leu
 Phe
 Asn
 Ser
 Lys
 His
 Asn
 Asn
 Ser
 Lys
 His
 Asn
 Leu
 Phe
 Asn
 Fer
 Thr
 Ala
 Ala
 L

<210> 6842 <211> 184 <212> PRT <213> Enterobacter cloacae

<400> 6842

Tyr Leu Pro Ala Ala Glu Thr Trp Val Trp Glu Glu Asn Gly Thr Leu 85 90 95 Cys Gly Phe Ile Ser Val Met Gln Phe Gln Phe Val Gly Ala Leu Phe

100 105 110 Val Ala Pro Ala Phe Ile Gly Lys Gly Ile Gly Arg Ala Leu Leu Asn

115 120 125
His Val Gln Gln His Tyr Pro Tyr Leu Thr Leu Glu Val Tyr Gln Lys
130 135 140

Asn Val Arg Ala Val Asn Phe Tyr His Ala Gln Gly Phe Arg Ile Glu 145 150 155 160

Asp Ser Ala Trp Gln Asp Asp Thr Gln His Pro Thr Trp Ile Met Ser 165 170 175

Trp Gln Ala Asp Gln Thr Pro 180

<210> 6843 <211> 77

<212> PRT

<213> Enterobacter cloacae

<400> 6843

 Val
 Thr
 Gly
 Ser
 Ala
 Leu
 Ala
 Phe
 Ser
 Ala
 Phe
 Ile
 Arg
 Ala
 His
 Gly

 1
 1
 5
 1
 Gly
 Gly
 Ile
 Cys
 Lys
 Asn
 Gly
 Ala
 Leu

 Asn
 Val
 Leu
 Thr
 Gln
 Asp
 Leu
 Pro
 Ser
 Ser
 Leu
 Gly
 Asn
 Gly
 Cys

 Ala
 Gly
 Asn
 Thr
 Ala
 Leu
 Ala
 Trp
 Val
 Glu
 Lys
 Tyr
 Glu
 Gly
 Pro
 Ala

 Ala
 Asn
 Thr
 Ala
 Leu
 Ala
 Trp
 Val
 Glu
 Lys
 Tyr
 Glu
 Gly
 Pro
 Ala

 Asn
 Thr
 Ala
 Leu
 Ala
 Trp
 Val
 Glu
 Lys
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 Gly
 Pro
 Ala

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 Trp
 Val
 Glu
 Lys
 Tyr
 Glu
 Gly

<210> 6844 <211> 125

<212> PRT

<213> Enterobacter cloacae

<400> 6844 His Ile Ser Pro Asn Ser Ala Leu Ser Gly Val Ala Leu Met Met Ile 10 Lys Lys Ile Ser Gly Arg His Ala Ala Ser Gly Leu Val Gly Val Ser 25 Val Cys Leu Leu Phe Cys His Thr Ala Phe Ala Trp Gln Glu Tyr 40 Ile Val Ser Asp Ala Gln Ser Asn Thr Thr Glu Arg Tyr Thr Trp Asp 55 Ala Asp His Gln Pro Arg Tyr Glu Asp Ile Leu Ala Glu Arg Ile Asn 75 70 Arg Thr Gln Asn Ala Tyr Gly Val Tyr Pro Glu Arg Ser Leu Arg Phe Gly Cys Gly Asn Arg Ser Glu Arg Trp Leu Glu Phe Ser Arg Gly Gly 105 Thr Phe His His Arg Ala Arg His Gly Val Ala His 120 <210> 6845 <211> 108 <212> PRT . <213> Enterobacter cloacae <400> 6845 Asp Pro Tyr Leu Ala Arg Leu Glu Lys Thr Lys Gln Gly Gln Asp Leu Lys Pro Val Tyr Asp Gln Val Tyr Glu Lys Val Val Thr Lys Pro Ser 20 Asn Ala Leu Gln Pro Leu Ile Pro Ala Ala Gln Val Phe Thr Gln Gln 40 Leu Val Gln Val Gly Asp Phe Ile Ser Glu Gln Gly Thr Gln Val Ser Phe Val Ser Asn Gly Ile Gln Phe Pro Thr Ser Gln Gln Ala Ser Gln 75 Tyr Asn Ala Leu Ile Gly Pro Leu Ala Ser Gln His Gln Ala Phe Ser Gln Ala Trp Ser Ala Ala Val Ala Ala Thr Glu 100 <210> 6846 <211> 98 <212> PRT <213> Enterobacter cloacae <400> 6846 Pro Phe Leu His Arg Leu Lys Ile Cys Asn Ala Ile His Gln Ala Gly Arg His Asn Ile Phe Val Asn Lys Val Ile Ser Met Ser Ala Lys Met

<210> 6847 <211> 178 <212> PRT <213> Enterobacter cloacae <400> 6847 Lys Lys Ser Val Val Ala Met Leu Leu Leu Ala Trp Trp Val Phe Gln 10 Ser Ala Cys Phe Phe Val Thr Pro Leu Leu Arg Gly Asn Arg Asn Ile 25 Ser Phe Gln Met His Lys Val Ile Arg Arg Asn Val Ile His Gly Thr Pro Ile Thr Asn Leu Val Met Lys Ile Phe Ser Arg Ser Val Leu Thr 55 Ala Pro Arg Met Pro Thr Gly Phe Thr Leu Asn Asp Pro Ser Gly Ser 75 Asp Ala Glu Thr Val Leu Ser Val Gly Trp Asn Phe Pro Val Ala Gly 85 90 His Phe Thr Thr Gly Pro Val Met Ala Trp Arg Thr Asp Gly Ala Pro 105 110 100 Pro Val Thr Val Asn Ala Phe Glu Asp Thr Thr Thr Gln Ser Leu 120 125 Thr Asp Pro Leu Trp His Ala Ser Val Asn Ser Leu Gly Trp Arg Val 140 135 Asp Thr Gln Tyr Gly Asp Leu His Pro Trp Ala Lys Ile Ser Tyr Asn 150 155 Gln Gln Thr Glu Glu Glu Tyr Leu Tyr Thr Leu Gly Leu Ser Ala Lys 165 170 Phe <210> 6848 <211> 429 <212> PRT <213> Enterobacter cloacae <400> 6848 Asp Ser Ala Gly Leu Tyr Thr Pro Ser Pro Arg Val Val Cys Met Lys 10 Tyr Ile Arg Ser Leu Thr Gln Gln Arg Leu Cys Leu Met Leu Ala Val 25 Tyr Ile Gly Leu Phe Leu Asn Gly Ala Val Leu Phe Arg Arg Val Glu 40 45 Gly Tyr Phe Glu His Leu Thr Val Arg Asn Gly Ile Phe Ala Ala Ile Glu Val Phe Gly Ser Ile Leu Ala Thr Phe Phe Leu Leu Arg Leu Leu 75 Ser Leu Phe Gly Arg Arg Thr Trp Gln Val Leu Ala Ser Leu Val Val 90 Ile Ile Ser Ala Ala Ala Ser Tyr Tyr Met Thr Phe Met Asn Val Val 105 110 Ile Gly Tyr Gly Ile Val Ala Ser Val Met Thr Thr Asp Ile Asp Leu 115 120 125 Ser Lys Glu Val Val Gly Gln Gly Phe Ile Leu Trp Thr Ile Leu Thr 135 140 Cys Leu Ile Pro Leu Phe Phe Ile Trp Ser Asn Thr Cys Arg Tyr Thr 155 150 Leu Leu Arg Gln Leu Arg Thr Arg Gly Gln Arg Ile Arg Asn Val Ala

170

Val Val Leu Leu Ala Gly Leu Leu Val Trp Ala Pro Ile Arg Leu Met 180 185 190

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Glu Lys Gln Gln Lys Arg Ile Glu Lys Ala Thr Gly Val Asp Met Pro
       195
                            200
Ser Tyr Gly Gly Val Val Ala Asn Ser Tyr Leu Pro Ser Asn Trp Leu
                       215
                                           220
Ser Ala Leu Gly Leu Tyr Ala Trp Ala Gln Ala Asp Glu Ser Ser Asp
                   230
                                       235
Val Lys Ser Leu Ile Asn Pro Thr Lys Lys Phe Thr Tyr Gln Ala Pro
               245
                                    250
Ala Asp Gly Leu Asp Asp Thr Tyr Val Val Phe Val Ile Gly Glu Thr
           260
                                265
                                                    270
Thr Arg Trp Asp His Met Gly Ile Leu Gly Tyr Asp Arg Asp Thr Thr
                            280
Pro Lys Leu Ala Gln Glu Lys Asn Leu Val Ala Tyr Arg Gly Tyr Ser
                        295
                                            300
Cys Asp Thr Ala Thr Lys Leu Ser Leu Arg Cys Met Phe Val Arg Glu
                    310
                                        315
Gly Gly Ala Ser Asp Asn Pro Gln Arg Thr Leu Lys Glu Gln Asn Val
                                    330
                325
Phe Ala Val Leu Lys Gln Leu Gly Phe Ser Ser Asp Leu Phe Ala Met
           340
                                345
Gln Ser Glu Met Trp Phe Tyr Thr Asn Thr Met Ala Asp Asn Ile Ala
                            360
                                                365
Tyr Arg Glu Gln Ile Gly Ala Glu Pro Arg Asn Arg Gly Lys Asn Val
                        375
                                            380
   370
Asp Asp Met Leu Leu Ser Glu Met Glu Gln Ser Leu Lys Asn His
                                        395
                    390
Pro Gln Gly Lys His Leu Ile Val Leu His Thr Lys Gly Ser His Tyr
                405
                                    410
Ser Leu His Ala Arg Gly Arg Gly Tyr Arg Ala Met Arg
           420
                                425
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<210> 6849 <211> 744

<212> PRT

<213> Enterobacter cloacae

<400> 6849

Ile Ala Ser Met Lys Gly Arg Asn Thr Cys Thr Gln Pro Gly Ala His 10 Ala Leu Ser Thr Ser Thr Lys Thr Ile Leu Thr Ala Ala His Trp Gly Pro Met Leu Val Glu Thr Asp Gly Asp Thr Val Leu Ser Ser Arg Gly 40 Ala Leu Pro Ser Arg His Leu Asn Ser Leu Gln Thr Val Val Arg Asp Gln Val His Ser Lys Thr Arg Val Arg Trp Pro Met Val Arg Lys Gly 75 70 Phe Leu Ala Ser Pro Asp Lys Pro Gln Gly Ile Arg Gly Gln Asp Glu 85 90 Phe Val Arg Val Ser Trp Asp Asp Ala Leu Ala Leu Ile His Thr Gln 100 105 110 His Lys Arg Ile Arg Asp Ser Tyr Gly Pro Ser Ser Ile Phe Ala Gly 120 125 Ser Tyr Gly Trp Arg Ser Asn Gly Val Leu His Lys Ala Ala Thr Leu 135 140 Leu Gln Arg Tyr Met Ser Leu Ala Gly Gly Tyr Thr Gly His Leu Gly 150 155 Asp Tyr Ser Thr Gly Ala Ala Gln Ala Ile Met Pro Tyr Val Val Gly 170 Gly Asn Glu Val Tyr Gln Gln Gln Thr Ser Trp Pro Leu Val Leu Glu 185

His Thr Glu Val Val Leu Trp Ser Ala Asn Pro Leu Asn Thr Leu 195 200 205 Lys Ile Ala Trp Asn Ala Ser Asp Glu Gln Gly Val Ser Tyr Phe Asp 215 220 Ala Leu Arg Lys Ser Gly Lys Arg Ile Ile Cys Ile Asp Pro Met Arg 230 235 Ser Glu Thr Leu Asp Phe Phe Gly Asn Ser Ala Glu Trp Ile Ala Pro 245 250 His Met Gly Thr Asp Val Ala Met Met Leu Gly Ile Ala His Thr Leu 265 Val Glu Asn Gly Trp His Asp Thr Glu Phe Leu Ala Arg Cys Thr Thr 280 Gly Phe Asp Lys Phe Ala Asp Tyr Leu Thr Gly Gln Ser Asp Gly Ile 295 300 Ala Lys Thr Ala Glu Trp Ala Ala Ala Ile Cys Gly Val Asn Ala Val 310 315 Lys Ile Arg Glu Leu Ala Ala Leu Phe His Ser His Val Thr Met Leu 325 330 Met Thr Gly Trp Gly Met Gln Arg Gln Gln Phe Gly Glu Gln Lys His 340 345 Trp Met Leu Leu Thr Leu Ala Ala Met Leu Gly Gln Ile Gly Thr Pro 360 Gly Gly Gly Phe Gly Leu Ser Tyr His Phe Ala Asn Gly Gly Asn Pro 370 375 380 Thr Arg Lys Ala Ala Val Leu Ala Ser Met Gln Gly Ser Val Gln Gly 390 395 Gly Val Asp Ala Val Asp Lys Ile Pro Val Ala Arg Ile Val Glu Ala 405 410 Leu Glu Asn Pro Gly Gly Phe Tyr Gln His Asn Gly Gln Asp Arg His 420 425 Phe Pro Asp Ile Lys Phe Ile Trp Trp Ala Gly Gly Ala Asn Phe Thr 440 445 His His Gln Asp Thr Asn Arg Leu Ile Arg Ala Trp Gln Lys Pro Glu 455 460 Leu Val Val Ile Ser Glu Cys Phe Trp Thr Ala Ser Ala Lys His Ala 470 475 Asp Ile Val Leu Pro Ala Thr Thr Ser Phe Glu Arg Asn Asp Leu Thr 485 490 Met Thr Gly Asp Tyr Ser Asn Gln His Met Val Pro Met Lys Arg Val 500 505 Val Ala Pro Arg Asp Glu Ala Arg Asp Asp Phe Asp Val Phe Ala Asp 520 Leu Ser Glu Met Trp Glu Ala Gly Gly Arg Glu Arg Phe Thr Glu Gly 535 Lys Thr Asp Leu Gln Trp Leu Glu Thr Phe Tyr Gln Ile Ala Ser Gln 550 555 Arg Gly Ala Ala Gln Gly Val Ser Leu Pro Pro Phe Ala Glu Phe Trp 565 570 Glu Ala Asn Gln Leu Phe Glu Met Pro Glu Ser Glu Gln Asn Ala Arg 585 590 Phe Val Arg Phe Ala Asp Phe Arg Arg Asp Pro Glu Asn His Pro Leu 595 600 Lys Thr Glu Ser Gly Lys Ile Val Ile Tyr Ser Glu Arg Ile Ala Ser 615 620 Phe Gly Tyr Ala Asp Cys Pro Pro His Pro Ala Trp Leu Glu Pro Asp 630 635 Glu Trp His Gly Asn Ala Gln Pro Gly Gln Leu Gln Leu Ser Ala 645 650 His Pro Ala His Arg Leu His Ser Gln Leu Asn Tyr Ser Ala Leu Arg 665 670 Glu Gln Tyr Ala Val Ala Gly Arg Glu Pro Ile Ala Leu Asn Ser Asp



Asp Ala Lys Ala Arg Gly Ile Asn Asp Gly Asp Leu Val Arg Val Trp 690 695 700

Asn Ala Arg Gly Gln Val Leu Ala Gly Ala Val Val Ser Asp Gly Ile 705 710 715 720

Arg Pro Gly Val Phe Cys Ile His Gln Gly Ala Trp Pro Asp Leu Ala 725 730 735

Leu Glu Gly Gly Arg Tyr Leu 740

<210> 6850 <211> 408 <212> PRT

<212> PRT <213> Enterobacter cloacae <400> 6850 Phe Ile Leu Gln Asp Thr Ala Met Asn Thr Ser Thr Tyr Asn Arg Thr 10 Arg Trp Leu Thr Leu Phe Gly Thr Ile Val Thr Gln Phe Ala Leu Gly 25 Ser Val Tyr Thr Trp Ser Leu Phe Asn Ser Ala Leu Ser Asp Lys Leu 35 40 Gly Ala Pro Ile Ser Gln Val Ala Phe Ser Phe Gly Leu Leu Ser Leu 55 60 Gly Leu Ala Ile Ser Ser Val Ala Gly Lys Leu Gln Glu Arg Phe 70 75 Gly Val Lys Arg Val Thr Met Ala Ser Gly Ile Leu Leu Gly Leu Gly 85 90 Phe Phe Leu Thr Ala Tyr Ser Asn Asn Leu Met Met Leu Trp Leu Ser 105 100 110 Ala Gly Val Leu Val Gly Leu Ala Asp Gly Ala Gly Tyr Leu Leu Thr 120 125 Leu Ser Asn Cys Val Lys Trp Phe Pro Glu Arg Lys Gly Leu Ile Ser 135 140 Ala Phe Ala Ile Gly Ser Tyr Gly Leu Gly Ser Leu Gly Phe Lys Phe 150 155 Ile Asp Ala His Leu Leu Ala Ser Val Gly Leu Glu Lys Thr Phe Met

170 165 Ile Trp Gly Val Ile Val Leu Val Met Ile Leu Phe Gly Ala Thr Leu 180 185 Met Lys Asp Ala Pro Gln Gln Glu Val Lys Thr Val Asn Gly Val Val 195 200 Glu Asn Asp Phe Thr Leu Ala Gln Ser Met Arg Lys Pro Gln Tyr Trp 215 220 Met Leu Ala Val Met Phe Leu Thr Ala Cys Met Ser Gly Leu Tyr Val 230 235 Ile Gly Val Ala Lys Asp Ile Ala Gln Gly Met Val Lys Leu Asp Ala 250 245

245 250 255

Ala Thr Ala Ala Asn Ala Val Thr Val Ile Ser Ile Ala Asn Leu Ser
260 265 270

260 265 270
Gly Arg Leu Val Leu Gly Ile Leu Ser Asp Lys Ile Ala Arg Ile Arg

275 280 285
Val Ile Thr Leu Gly Gln Val Ile Ser Leu Val Gly Met Ala Ala Leu
290 295 300

Leu Phe Ala Pro Leu Asn Glu Ala Thr Phe Phe Ala Ala Ile Ala Cys 305 310 315 320 Val Ala Phe Asn Phe Gly Gly Thr Ile Thr Val Phe Pro Ser Leu Val

325 330 335 Ser Glu Phe Phe Gly Leu Asn Asn Leu Ala Lys Asn Tyr Gly Val Ile

340 345 350 Tyr Leu Gly Phe Gly Ile Gly Ser Ile Cys Gly Ser Leu Ile Ala Ser

355 360 365

Leu Phe Gly Gly Phe Tyr Val Thr Phe Cys Val Ile Phe Ala Leu Leu 370 375 380

Ile Ile Ser Leu Ala Leu Ser Thr Thr Ile Arg Gln Pro Gln Arg Glu 385 390 395 400

Val Tyr Lys Glu Ala His Ala 405

<210> 6851 <211> 398 <212> PRT

Ser Arg Asn Glu Arg Ala Gly Val Thr Gly Val Leu Leu Phe Asn Gly Ile His Phe Leu Gln Leu Leu Glu Gly Asp Glu Ala Ala Val Met Gln Ile Tyr Glu Lys Ile Cys Leu Asp Thr Leu His Phe Asn Ile Val Glu 70 75 Leu Leu Ser Asp Tyr Ala Pro Tyr Arg Arg Phe Gly Arg Ser Gly Met 90 85 Glu Leu Ile Asp Ile Arg Leu Phe Ser Lys Glu Glu Cys Leu Asp Arg 100 105 Val Leu Gln Arg Gly Thr Thr Gln His Lys Met Leu Tyr Asn Asp Arg 120 125 Ala Leu Arg Phe Phe Arg Thr Phe Ile Asp Ser Ala Glu Thr Asp Asn 135 140 Tyr Tyr Glu Leu Pro Asp Arg Phe Ser Trp Phe Phe Ser Ser Asp Gln 150 155 Ile Asp Val Ser Ser Val Asp Pro Ala Ile Ile Glu Asp Met Tyr Ala 165 170 Val Ile Asp Pro Leu Ala Ala Gln Ile His Ser Phe Val Leu Asn Ala 180 185 Lys Ser Asp Asn Asp Val Ile Lys Val Asn Asn Leu Leu Phe Asp Leu 200 Glu Ser Lys Lys Asp Leu Leu Lys Ile Ala Gly Gly Phe Ile Thr Ser 215 220 Ser Gln Arg Val Ser Ile Thr Leu Leu Pro Leu Thr Leu Leu Arg Val 230 235 Pro Asn Ala Ile Glu Ile Leu Leu Asp Tyr Ile Arg Glu Ser Asn Leu 250 His Pro Glu Gln Val Leu Val Glu Phe Ser Glu Ser Glu Ile Ile Pro 265 Glu Ile Asp Glu Phe Ala His Ser Val Gln Ile Leu Lys Ser Cys Gly 280 Leu Ser Val Ala Ile Asn Asp Phe Gly Val Gly Asn Ala Gly Leu Leu 295 300 Phe Leu Ser Lys Phe Gln Pro Glu Lys Leu Lys Ile His Pro Gln Leu 310 315 Ile His Asn Ile His Lys Asp Gly Ser Lys Gln Ala Ile Leu Gln Ser 330 325 Leu Ile Arg Cys Gly Glu Leu Leu Glu Ile Arg Ile Cys Ala Thr Gly 340 345

Val Glu Gln Pro Glu Glu Trp Met Trp Leu Glu Ser Ala Gly Ile Phe 355 360 365 Cys Phe Gln Gly Asn Leu Phe Ser Lys Tyr Asp Lys Asn Gly Tyr Leu

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375
Lys Ile Phe Trp Pro Glu Ser Asn Glu Phe Ile Gln Cys
                    390
<210> 6852
<211> 286
<212> PRT
<213> Enterobacter cloacae
<400> 6852
Gly Arg Glu Val Arg Thr His His Tyr Arg Val Gly Glu Arg Met Asn
                                    10
Leu Glu Asn Thr Leu Lys Tyr His Phe Ala Lys Ser Thr Met Ile Ser
                                25
Asp Ser Pro Arg Ala Thr Ala Ser Asp Ser Leu Ser Gly Thr Asp Ile
                            40
Met Ala Ala Met Gly Met Thr Gln Glu Arg Ala Ala Leu Gly Tyr Ser
                        55
Ala Phe Leu Gly Lys Met Gly Ile Ser Asn Asn Asp Arg Glu Arg Ala
                    70
                                        75
Ile Glu Leu Leu Ala Gln Tyr Ala Leu Thr Lys Cys Asp Arg Val Ala
                8.5
                                    90
Ala Leu Arg Lys Leu Asp Ala Arg Val Lys Pro Leu Val Met His Gln
                                105
            100
                                                    110
Leu Ala Ser Phe Ala Phe Glu Asp Tyr Ser Arg Ser Ala Ala Ser Val
                            120
                                                 125
Lys Gln Cys Asp Cys Cys Ser Gly Gln Gly Phe Ile Glu Ala Asp Val
                        135
                                            140
Phe Thr Met Lys Ser His Tyr Thr Met Lys Leu Pro Gln Trp Ala Lys
                    150
                                        155
Asp Leu Lys Gln Ser Pro Ser Tyr Phe Glu Val Lys Arg Gln Val Lys
                165
                                    170
                                                         175
Glu Val Ala Lys Val Leu Cys Ser Thr Cys Lys Gly Lys Lys Val Val
            180
                                185
                                                    190
Ser Cys Ala Cys Lys Asp Cys His Gly Arg Gly Lys Ala Val Asn Gln
                            200
                                                205
        195
Asp Leu Thr Glu Lys Gln Gly Val Pro Val Leu Ala Asp Cys Lys Arg
                                            220
                        215
Cys Gly Gly Arg Gly Tyr Glu Arg Ile Pro Ser Thr Glu Ala Tyr Ala
                                        235
                    230
Ala Val Arg Gln Ile Thr Asp Thr Ile Ser Leu Asp Thr Trp Lys Lys
                245
                                    250
Ser Val Lys Pro Phe Tyr Asp Gln Leu Ile Thr Lys Phe Asp Ile Glu
                                265
Glu Ala Trp Ala Asp Ala Gln Leu Lys Gln Ile Thr Lys
        275
                            280
<210> 6853
<211> 233
<212> PRT
<213> Enterobacter cloacae
<400> 6853
Arg Gly Ala Gly Met Lys Asn Leu Ala Glu Ser Ile Arg Asn Phe Asp
                                    10
Arg Glu Gln Ala Cys Arg Val Ala His Asn Leu Pro Glu Gln Tyr Thr
                                25
Glu Arg Glu Gln Thr Gln Gln Val Ala Gln Ile Ile Asn Gly Leu Phe
                            40
Val Gln Leu Ala Ala Ala Phe Pro Ala Ser Leu Val Asn Arg Ser Gln
```

```
Asp Asp Val Asp Glu Ile Arg Arg Gln Trp Val Leu Ala Phe Lys Glu
                    70
                                        75
Asn Gly Ile Asn Thr Met Glu Gln Val Glu Ala Gly Met Arg Met Val
                85
                                    90
Arg Arg Gln Glu Arg Pro Phe Leu Pro Ser Pro Gly Gln Phe Ile Lys
                                105
Trp Cys Arg Glu Gly Arg Cys Val Leu Gly Val Thr Thr Ala Asp Val
                            120
Met Ala Glu Tyr Trp Lys Trp Arg Lys Leu Val Phe Arg Tyr Pro Ser
                        135
                                            140
Ser Glu Gln Tyr Pro Trp Pro Lys Pro Val Tyr Tyr His Ile Cys Leu
                    150
                                        155
Glu Leu Arg Arg Gly Thr Asp Gly Gln Leu Ser His Lys Glu Leu
                165
                                    170
Glu Arg Glu Ala Gly Asp Ile Leu Asp Arg Trp Glu Lys Arg Val Leu
                                185
                                                     190
Ala Gly Lys Pro Ile Pro Pro Ile Arg Arg Ala Leu Ala Ala Pro Val
                            200
Ala Pro Lys Gly Pro Thr Pro Ala Glu Leu Leu Lys Thr Lys Tyr Gln
                        215
                                            220
Arg Met Lys Ala Asp Gly Arg Ala
                    230
<210> 6854
<211> 104
<212> PRT
<213> Enterobacter cloacae
<400> 6854
Arg Ser Cys Glu Ala Ser Phe Tyr Phe Lys Arg Leu Lys Lys Val Glu
                                    10
Ile Thr Met Lys Arg Pro Asn Trp Phe Gln Val Ser Asp Lys Gly Gly
            20
                                25
Lys Ala Ile Ala Ala Leu His His Tyr Ala Thr Thr Gly Thr Gly Leu
                            40
Pro Ala Glu Leu Ile His Leu Ile Phe Leu Arg Val Ser Gln Ile Asn
Gly Cys Ala His Cys Ile Asp Ile His Thr Arg Asp Leu Ile Lys Ser
Gly Met Ser Val Glu Lys Ile Val Leu Cys Leu Phe Trp Arq Glu Pro
                                    90
Ser Tyr Phe Ile Leu Arg Ile
            100
<210> 6855
<211> 162
<212> PRT
<213> Enterobacter cloacae
<400> 6855
Asp Gly Asp Ser Gly Asp Ser Gln Arg Ile Ser Leu Met Lys Glu Ile
                                    10
Asp Val Gly Phe Thr His Val Ala Phe Val Val Arg Asp Leu Asp Lys
                                25
Ser Ile Asp Phe Tyr Gly Arg Tyr Ala Gly Met Glu Val Val His Arg
                            40
Arg Glu Pro Asp Leu Pro Glu Ala Arg Lys Val Ala Trp Leu Ser Asp
Leu Thr Arg Pro Phe Ala Leu Val Leu Val Gln Val Asp Ala Val Thr
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Asp Thr Pro Leu Gly Asn Phe Gly His Leu Gly Val Ala Cys Ser Ser

| Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Solid | Soli

<210> 6856 <211> 158 <212> PRT

<213> Enterobacter cloacae

<400> 6856

Ala Gln Pro Lys Pro Gly Leu Arg Asp Leu Asp Cys Lys Cys Ile Leu 10 Ala Asp Leu Lys Tyr Thr Ser Ala Pro Gly Gln Pro Leu Ala Lys Pro 20 25 Asp Val Gly Val Asn Val Lys Thr Tyr Gln Ile Thr Leu Pro Trp Pro 35 Pro Ser Asn Asn Arg Tyr Tyr Arg His Asn Arg Gly Arg Thr His Ile 55 Ser Ala Asp Gly Val Ala Tyr Arg Tyr Ala Val Ala Ser Val Ile Arg 75 Ser Ala Arg Leu Asn Ile Arg Thr Ala Ala Pro Leu Lys Ile Arg Ile 90 Glu Cys His Met Pro Asp Arg Arg Arg Asp Leu Asp Asn Leu Gln 100 105 Lys Ala Ala Phe Asp Ala Leu Thr Lys Ala Arg Phe Trp Leu Asp Asp 120 125 Cys Gln Val Val Asp Tyr Arg Val Val Lys Met Pro Val Val Lys Gly 135 Gly Lys Leu Glu Leu Thr Ile Thr Glu Leu Glu Asn Ala 145 150

<210> 6857 <211> 298

<212> PRT <213> Enterobacter cloacae

<400> 6857

Arg Gly Ala Ser Gly Gly Ser Trp Ala Lys Val Leu Thr Thr Asp Gln Lys Arg Glu Ala Val Met Leu Met Cys Asp Ala Thr Gly Leu Ser Gln 25 Arg Arg Ala Cys Arg Leu Thr Gly Leu Ser Leu Ser Thr Cys Arg Tyr 40 Glu Ala His Arg Pro Ala Ala Asp Ala His Leu Ser Gly Arg Ile Thr 55 Glu Leu Ala Leu Glu Arg Arg Phe Gly Tyr Arg Arg Ile Trp Gln 75 70 Leu Leu Arg Arg Glu Gly Leu His Val Asn His Lys Arg Val Tyr Arg 85 90 Leu Tyr His Leu Ser Gly Leu Gly Val Lys Arg Arg Arg Arg Lys 105 Gly Leu Ala Thr Glu Arg Leu Pro Leu Leu Arg Pro Ala Ala Pro Asn 120

Leu Thr Trp Ser Met Asp Phe Val Met Asp Ala Leu Ser Thr Gly Arg 135 140 Arg Ile Lys Cys Leu Thr Cys Val Asp Asp Phe Thr Lys Glu Cys Leu 150 155 Thr Val Thr Val Ala Phe Gly Ile Ser Gly Val Gln Val Thr Arg Ile 170 Leu Asp Ser Ile Ala Leu Phe Arg Gly Tyr Pro Ala Thr Ile Arg Thr 185 Asp Gln Gly Pro Glu Phe Thr Cys Arg Ala Leu Asp Gln Trp Ala Phe 200 195 205 Glu His Gly Val Glu Leu Arg Leu Ile Gln Pro Gly Lys Pro Thr Gln 215 220 Asn Gly Phe Ile Glu Ser Phe Asn Gly Arg Phe Arg Asp Glu Cys Leu 230 235 Asn Glu His Trp Phe Ser Asp Ile Val His Ala Arg Lys Ile Ile Asn 250 245 Asp Trp Arg Gln Asp Tyr Asn Glu Cys Arg Pro His Ser Thr Leu Asn 260 265 Tyr Gln Thr Pro Ser Glu Phe Ala Ala Gly Trp Arg Lys Gly His Ser 275 280 285 Glu Asn Glu Asp Ser Asp Val Thr Asn 295 290

<210> 6858 <211> 153

<212> PRT <213> Enterobacter cloacae

<400> 6858

Ala Lys Tyr Gly Ser Ala Phe Pro Gly Met Gly Arg His Pro Glu Gly 10 Gly Leu Ser Val Ala Ile Ser Asn Pro Arg Lys Pro Ala Glu Glu Leu Gln Val Val Gly Val Asp Phe Ser Gly Gln Ala Asp Val Trp Asn Val Lys Leu Phe Arg Trp Val Asp Asn Lys Glu Asp Ser Ala Ser Tyr Arg 55 Lys Asn Val Glu Gln Leu Val Pro Ala Ile Ile Tyr Val Leu Pro Leu 75 Arg Tyr Arg Asp Arg Val Val Lys Tyr Asp Ser Phe Ala Tyr Arg Met 90 Ala Arg Leu Glu Lys Glu Val Ser Glu Ala Lys Gln Ala Leu Met Leu Asp Ala Pro Lys Lys Val Lys Leu Lys Glu Leu Gly Glu Gly Ile Phe 120 Glu Met Phe Arg Val Asp Pro Asp Val Thr Ala Pro Leu Leu Ala Met 135 Val Thr Thr Met Leu Gly Ala Met

<210> 6859 <211> 330

<212> PRT

<213> Enterobacter cloacae

150

<400> 6859

Arg Arg Lys Pro Val Cys Val Asn Arg Thr Asp Phe Gln Val Gln Lys 1 5 10 15 
Arg Ser Val Ile Ala Glu Leu Ser Met Ser Asn Thr Ala Glu Ile Ile 20 25 30 
Asn Phe Pro His Arg Thr Glu Gln Pro Gly Gly Arg Met Ala Asp Leu

40 Ser Asn Gly Tyr Thr Lys Val Ala Asn Glu Ile Gln Gln Leu Lys Pro 55 60 Arg Leu Arg Met Ser Gly Arg Glu Trp Gln Cys Phe Glu Ala Val Ile 70 75 Trp Leu Thr Tyr Gly Trp Asn Lys Lys Gln Asp Arg Val Thr Asn Thr 85 90 Val Ile Ala Glu Leu Thr Gly Leu Ser Asp Ser His Val Ser Asp Ala 105 Leu Lys Ser Leu Ala Glu Arg Lys Ile Ile Phe Ser Gln Lys Gln Gly 120 Val Met Lys Thr Val Gly Ile Asn Thr Asp Leu Ser Ala Trp Ile Leu 135 Asp Lys Pro Lys Thr Gly Lys Val Phe Pro Lys Ser Gly Lys Val Leu 150 155 Pro Lys Thr Gly Lys Thr Phe Pro Glu Thr Val Asp Thr Gln Asp Tyr 165 170 Asn Lys Asn Asn Ile Lys Arg Ser Ser Ser Arg Asn Ser Asp Glu Ser 185 190 Arg Asn Gln Lys Thr Gln Lys Phe Leu Ser Arg His Pro Glu Ala Ala 200 Asp Gly Ile Tyr Thr Pro Ala Gly Lys Ser Trp Gly Ser Ala Asp Asp 215 220 Leu Lys Ala Ala Arg Trp Ile Tyr Asp Arg Leu Leu Thr Val Asn Ala 235 230 Ser Leu Ser Glu Pro Asn Trp Ala Glu Trp Ala Asn Thr Ile Arg Leu 245 250 Met Arg Val Gln Asp Lys Arg Thr His Tyr Glu Ile Cys Asp Leu Phe 260 265 270 Gln Trp Ala Asn Arg Asp Glu Phe Trp Lys Asp Asn Ile Leu Ser Pro 275 280 Ser Ser Leu Arg Lys Gln Trp Asp Gln Leu Thr Thr Lys Arg Leu Arg 295 300 Ala Thr Gly Thr Ala Lys Pro Ser Arg Ser Gly Ile Asp Leu Leu Asn 315 310 Thr Asp Trp Ile Asp Gly Val Leu Glu

```
<210> 6860
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325

# <400> 6860

 Ile
 Tyr
 Cys
 Ile
 Gln
 Leu
 Phe
 Ile
 Ala
 Glu
 Gly
 Lys
 Met
 Lys
 Lys
 Leu
 Fro
 Val
 Gly
 Ala
 Ile
 I

<sup>&</sup>lt;211> 89

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<sup>&</sup>lt;210> 6861

<sup>&</sup>lt;211> 98

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

- 1 -

<210> 6862 <211> 261

<212> PRT

<213> Enterobacter cloacae

<400> 6862

Tyr Trp Pro Lys Asn Lys Pro Glu Ala Gln Phe Gln Leu Met Asn Leu 10 Leu Ser Leu Leu Pro Val Gly Cys Asp Ile Phe Val Val Gly Glu Asn 25 Arg Ser Gly Val Arg Ser Ala Glu Gln Met Leu Glu Ala Trp Ala Pro Leu Thr Lys Ile Asp Ser Ala Arg Arg Cys Gly Leu Tyr His Gly Arg 5.5 Leu Glu Lys Gln Thr Thr Phe Asp Ala Asp Ala Phe Trp Asp Glu Tyr 70 75 Gln Leu Glu Gly Leu Thr Ile Lys Thr Leu Pro Gly Val Phe Ser Arg 85 90 Asp Ala Leu Asp Thr Gly Ser Lys Leu Leu Ser Thr Leu Thr Pro 100 105 His Thr Lys Gly Lys Val Leu Asp Val Gly Cys Gly Ala Gly Val Leu 120 Ser Thr Val Leu Ala Ser His Ser Pro Lys Val Arg Leu Thr Leu Cys 135 140 Asp Val Ser Ala Pro Ala Val Glu Ala Ser Arg Ala Thr Leu Ala Ala 155 Asn Gly Ile Glu Gly Asp Val Ile Ala Ser Asn Val Phe Ser Asp Val 170 Thr Gly Arg Phe Asp Met Ile Met Ser Asn Pro Pro Phe His Asp Gly 185 Met Glu Thr Ser Leu Glu Ala Ala Gln Thr Leu Ile Arg Gly Ala Thr 200 Arg His Leu Asn Ser Gly Gly Glu Leu Arg Ile Val Ala Asn Ala Phe 215 220 Leu Ala Tyr Pro Lys Val Leu Asp Glu Thr Phe Gly Phe His Glu Val 230 235 Ile Ala Gln Thr Gly Arg Phe Lys Val Tyr Arg Thr Val Met Thr Arg

250

Gln Ala Lys Lys

260

<210> 6863 <211> 313

<212> PRT

#### <213> Enterobacter cloacae

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<400> 6863
Tyr Arg Lys Pro Phe Ser Gln Leu Lys Glu Val Met Pro Thr Met Thr
                                    10
Gln Val Ala Lys Lys Ile Leu Val Thr Cys Ala Leu Pro Tyr Ala Asn
                                25
Gly Ser Ile His Leu Gly His Met Leu Glu His Ile Gln Ala Asp Val
                            40
Trp Val Arg Tyr Gln Arg Met Arg Gly His Glu Val Asn Phe Ile Cys
                        55
Ala Asp Asp Ala His Gly Thr Pro Ile Met Leu Lys Ala Gln Gln Leu
                    70
                                        75
Gly Ile Ser Pro Glu Gln Met Ile Ala Glu Met Ser Gln Glu His Gln
                                    -90
                8.5
Thr Asp Phe Ala Gly Phe Asp Ile Ser Tyr Asp Asn Tyr His Ser Thr
            100
                                105
                                                    110
His Ser Asp Glu Asn Arg Glu Leu Ser Glu Leu Ile Tyr Thr Arg Leu
                            120
                                                125
Lys Glu Asn Gly Phe Ile Lys Asn Arg Thr Ile Ser Gln Leu Tyr Asp
                        135
                                            140
Pro Glu Lys Gly Met Phe Leu Pro Asp Arg Phe Val Lys Gly Thr Cys
                    150
                                        155
Pro Lys Cys Lys Ser Pro Asp Gln Tyr Gly Asp Asn Cys Glu Val Cys
                                    170
Gly Ala Thr Tyr Ser Pro Thr Glu Leu Ile Glu Pro Lys Ser Val Val
                                185
            180
Ser Gly Ala Thr Pro Val Met Arg Asp Ser Glu His Phe Phe Asp
        195
                            200
Leu Pro Ser Phe Ser Glu Met Leu Lys Ala Trp Thr Arg Ser Gly Ala
                        215
Leu Gln Glu Gln Val Ala Asn Lys Met Gln Glu Trp Phe Glu Ser Gly
                                        235
                    230
Leu Gln Gln Trp Asp Ile Ser Arg Asp Ala Pro Tyr Phe Gly Phe Glu
                245
                                    250
Ile Pro Asn Ala Pro Gly Lys Tyr Phe Tyr Val Trp Leu Asp Ala Pro
                                265
Ile Gly Tyr Met Gly Ser Phe Lys Asn Leu Cys Asp Lys Arg Gly Asp
        275
                            280
Thr Val Ser Phe Asp Glu Tyr Trp Lys Lys Asp Ser Asp Ala Glu Leu
                        295
Tyr His Phe Ile Gly Lys Asp Ile Val
                    310
<210> 6864
<211> 367
<212> PRT
<213> Enterobacter cloacae
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## <400> 6864

 Met
 Lys
 Ser
 Met
 Asn
 Lys
 Asn
 Phe
 Thr
 Ala
 Ile
 Phe
 Val
 Ile
 Phe
 Val
 Ile
 Phe
 Val
 Ile
 Ile
 Val
 Ala
 th

85 90 Ala Gly Ala Leu Ala Asp Thr Ala Ser Leu Lys Ser Glu Thr Ala Leu 105 100 Gln Gly Val Ala Thr Asn Gly Thr Ala Ile Ile Asn Leu Gln His Val 120 125 Asp Asn Ile Gln Asp Ser Arg Leu Thr Ala Leu Glu Asn Ala Pro Lys 135 140 Pro Ile Asn Gly Ala Asp Gly Ala Lys Gly Asp Lys Gly Asp Thr Gly 150 155 Ala Thr Gly Ala Lys Gly Asp Lys Gly Asp Thr Gly Ala Thr Gly Ala 165 170 Lys Gly Asp Lys Gly Asp Thr Gly Val Thr Gly Ala Lys Gly Glu Lys 185 Gly Asp Ala Gly Ala Thr Gly Met Lys Gly Asp Lys Gly Asp Thr Gly 200 Ala Gln Gly Ile Ala Gly Arg Asn Gly Arg Asp Gly Ala Asp Gly His 215 220 Asn Gly Lys Asp Gly Val Thr Thr Thr Val Thr Gln Arg Gln Leu Asp 230 235 Thr Ala Thr Gln Ala Lys Val Ala Lys Asn Ser Met Ala Val Thr Ala 245 250 Ala Thr Gln Asp Leu Gln Ala Thr Arg Gln Ser Leu Gln Ala Met Asn 260 265 270 Thr Asn Thr Ser Gln Gln Phe Lys Ser Leu Arg Asp Glu Val Asp Asn 280 285 275. Asn Lys Lys Gln Ala Asn Ala Gly Ile Ser Gly Ala Met Ala Met Ala 295 300 Gly Leu Pro Gln Val Gln Thr Asn Gln Arg Val Met Ser Ser Ala Gly 310 315 Gly Ala Thr Tyr Asn Gly Glu Ser Ala Leu Ala Val Gly Ala Ser Val 325 330 Asn Phe Asn Ser His Val Ile Ala Lys Val Ser Phe Ser Asp Asp Thr 340 345 350 Ala Asn Asn Met Gly Ala Ser Val Gly Ile Gly Met Gly Phe 355 360

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<210> 6865
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# <400> 6865

Arg Ser Gly Gly Cys Arg Ser Asp Met Met Thr Asp Lys Val Arg Ile Asp Thr Val Asp Ala His Lys Ser Asn Glu Thr Tyr Leu Ala Arg Gln Ala Glu Phe Glu Ser Asn Val Arg Ser Tyr Pro Arg Lys Leu Pro Leu 40 45 Ala Ile Thr Lys Ala Glu Gly Val Trp Ile Thr Asp Ala Asp Asn Lys 55 60 Glu Tyr Leu Asp Cys Leu Ala Gly Ala Gly Thr Leu Ala Leu Gly His 70 75 Asn His Pro Asp Val Leu Lys Ser Ile Gln Asn Val Ile Thr Ser Gly 85 90 Leu Pro Leu His Thr Leu Asp Leu Thr Thr Pro Leu Lys Asp Ala Phe 100 105 Ser Glu Tyr Leu Leu Ser Leu Leu Pro Gly Gln Gly Lys Glu Tyr Cys 120 125 Leu Gln Phe Thr Gly Pro Ser Gly Ala Asp Ala Val Glu Ala Ala Leu 135 140 Lys Leu Ala Lys Lys Val Thr Gly Arg Ser Gly Ile Ile Ser Phe Ser

<sup>&</sup>lt;211> 467

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

150 155 Gly Gly Tyr His Gly Met Thr His Gly Ala Leu Ser Val Thr Gly Asn 165 170 Leu Ser Pro Lys Glu Ala Val Asp Gly Met Met Pro Glu Val Gln Phe 185 180 190 Met Pro Tyr Pro His Glu Tyr Arg Cys Pro Leu Gly Ile Gly Glu Glu 200 205 195 Ala Gly Val Lys Ala Leu Thr Tyr Tyr Phe Glu Asn Leu Ile Asn Asp 215 220 Val Glu Ser Gly Val Arg Lys Pro Ala Ala Val Ile Leu Glu Ala Val 230 235 Gln Gly Glu Gly Gly Val Asn Pro Ala Pro Val Glu Trp Leu Gln Arg 245 250 Ile Arg Lys Val Thr Gln Glu His Gly Ile Leu Leu Ile Leu Asp Glu 265 Val Gln Ala Gly Phe Ala Arg Thr Gly Lys Phe Phe Ala Phe Glu His 280 Ala Gly Ile Glu Pro Asp Ile Ile Val Met Ser Lys Ala Val Gly Gly 295 300 Gly Leu Pro Leu Ala Val Leu Gly Ile Lys Lys Gln Phe Asp Ala Trp 310 315 Ala Pro Gly His His Thr Gly Thr Phe Arg Gly Asn Gln Leu Ala Met 330 325 Ala Thr Gly Leu Thr Thr Leu Lys Ile Leu Lys Asp Gln Asn Ile Ala 340 345 Gly Lys Val Ala Ala Gln Gly Glu Trp Leu Lys Gly Gln Leu Lys Glu 355 360 365 Met Ala Lys Arg Tyr Pro Val Ile Gly His Val Arg Gly Leu Gly Met 375 380 Met Ile Gly Ile Glu Ile Val Lys Pro His Glu Ala Ala Asp His Met 390 395 Gly Cys Phe Pro Gly Asp Gly Glu Leu Ser Ala Leu Ile Gln Lys Lys 405 410 Cys Phe Glu Ala Gly Leu Ile Leu Glu Arg Gly Gly Arg Asn Gly Ile 425 420 Val Leu Arg Leu Leu Pro Ser Leu Leu Ile Ser Asp Asp Glu Leu Lys 435 440 Val Phe Leu Asp Lys Phe Glu Gln Ala Leu Leu Ala Ala Gly Val Ser 450 455 Pro Ala 465 <210> 6866 <211> 495 <212> PRT <213> Enterobacter cloacae <400> 6866 Pro Glu Leu Leu Ile Thr Met Ser Asp Ser Asn Pro Ile Leu Phe Ser 10 Ser Ala Gln Ser Ile Glu Ala Tyr Gln Gln Ala Ile Glu Gln Ser Thr 20 25 Gln Ala Val Met Gln Trp Leu Lys Gln Pro Glu Met Tyr Gln Gly Lys 40 4.5

Thr Val Ala Glu Leu Arg Asp Arg Ile Lys Leu Asp Phe Asn Pro Lys

Gly Leu Gly Asn Glu Ala Ala Ile Glu Arg Ala Val Glu Phe Phe Leu

Lys Asp Ser Leu Ser Val His His Pro Gln Cys Val Ala His Leu His

Cys Pro Ser Leu Val Val Ser Gln Ala Ala Glu Val Leu Ile Asn Ala

60

75

90

55

100 105 110 Thr Asn Gln Ser Met Asp Ser Trp Asp Gln Ser Pro Ser Ala Thr Ile 120 125 Ile Glu Ile Lys Leu Ile Glu Trp Leu Arg Thr Arg Val Gly Tyr Gln 135 140 Ala Gly Asp Ala Gly Val Phe Thr Ser Gly Gly Thr Gln Ser Asn Leu 150 155 Met Gly Leu Met Leu Ala Arg Asp Ala Phe Phe Ala Arg Gln Gly His 165 170 Ser Val Gln Gln Asp Gly Leu Thr Gly Asp Leu Arg Lys Ile Arg Val 185 Leu Cys Ser Glu Asn Ala His Phe Ser Val Gln Lys Asn Met Ala Leu 200 Met Gly Leu Gly Tyr Gln Ser Val Val Gln Val Lys Thr Asp Glu Phe 215 Ser Arg Met Asp Leu Thr Asp Leu Ala Ala Lys Ile Glu Gln Cys Asn 230 235 Ala Asn Gly Glu Gln Ile Leu Ala Ile Val Ala Thr Ala Gly Thr Thr 245 250 Asp Ala Gly Ala Ile Asp Pro Leu Arg Ala Ile Ala Glu Leu Ala Ala 260 265 Lys Gln Asn Ile Trp Val His Val Asp Ala Ala Trp Gly Gly Ala Leu 280 285 Leu Met Ser Glu Gln Tyr Arg His Tyr Leu Asp Gly Ile Glu Leu Val 295 300 Asp Ser Val Thr Leu Asp Phe His Lys Gln Phe Phe Gln Thr Ile Ser 310 315 Cys Gly Ala Phe Leu Leu Lys Glu Ala Arg His Tyr Glu Leu Met Arg 325 330 Tyr Gln Ala Ala Tyr Leu Asn Ser Glu Phe Asp Glu Glu Ala Gly Val 340 345 Pro Asn Leu Val Ser Lys Ser Leu Gln Thr Thr Arg Arg Phe Asp Ala 355 360 365 Leu Lys Leu Trp Met Ser Leu Glu Ala Leu Gly Gln Glu Gln Tyr Ala 370 375 380 Ala Ile Ile Asp His Gly Val Thr Leu Ala Gln Gln Val Ala Ala Tyr 390 395 400 Val Lys Glu Gln Ser Ala Leu Glu Leu Val Met Gln Pro Gln Leu Ala 405 410 Ser Val Leu Phe Arg Phe Arg Pro Gln Ala Gln Met Asp Asp Ala Gly 420 425 430 Ile Ala Leu Leu Asn Gln Lys Ile Gly Asp Ala Leu Leu Glu Ser Gly 440 Arg Ala Asn Val Gly Val Thr Glu His Asn Gly Ile Thr Cys Leu Lys 455 Leu Thr Leu Leu Asn Pro Thr Val Thr Leu Glu Asp Val Lys Ile Leu 475 470 Leu Ser Leu Val Glu Arg Thr Ala Gln Glu Val Met Ala Lys

<210> 6867

<211> 133

<212> PRT

<213> Enterobacter cloacae

<400> 6867

Thr Val Cys His Pro Phe Ala Asp Leu His Thr Lys Ser Ile Ser Asn 1 5 10 15 
Asp Met Thr Gly Glu Lys Met Ala Lys Arg Lys Leu Leu Leu Gly 20 25 30 
Val Leu Val Ser Leu Ala Gly Ala Ala His Ala Ala Pro Gln Ala Ser

40 Thr Ala Pro Ser Gly Ile Lys Ala Tyr Glu Glu Gln Glu Phe Ile Ala 60 Asp Phe Thr Lys Phe Lys Ile Gly Asp Thr Ala Pro Ala Gln Tyr Gln 70 75 Thr Pro Glu Tyr Thr Ile Lys Gln Tyr Gln Leu Arg Asn Leu Pro Ala 85 90 Pro Asp Ala Gly Thr His Trp Thr Tyr Met Gly Glu Asn Tyr Val Leu 105 100 Ile Gly Asp Ala Asp Gly Lys Ile Tyr Lys Ala Tyr Asn Gly Asp Ile 115 120 Phe Tyr His Arg 130

<210> 6868 <211> 164 <212> PRT <213> Enterobacter cloacae

2137 Enteropation Croada

<400> 6868 Leu Ala Met Pro Met Ala Lys Ser Thr Lys Pro Ile Thr Glu Ile Phe Ser Ile Thr Ala Asp Thr Ile Leu Ile Arg Pro Trp Gln Glu Ser Asp 25 20 Arg Pro Phe Leu Arg Thr Leu Phe Leu His Ala Arg Arg Glu Ala Trp Pro Trp Leu Asp Ser Ser Ala Trp Gln Leu Glu Asp Phe Asp Ala Ala 55 Thr Leu Asp Glu Glu Ile Trp Val Ala Glu Gln Asp Gly His Arg Leu 70 75 Gly Phe Ala Ser Val Trp Thr Asn Asp Asn Phe Leu His Asn Leu Phe 8.5 90 Val Asp Pro Gln Tyr Gln Arg Leu Gly Val Gly His Leu Leu Glu 105 100 Gln Val Gln Lys Thr Phe Thr Asn Thr Gly Ala Leu Lys Cys Leu Val 120 125 Lys Asn Glu Arg Ala Ile Ala Phe Tyr His Arg His Gly Trp His Ile 135 140 Glu Ala Thr Gly Asp Ser Pro Asp Gly Glu Tyr Tyr Leu Met His Tyr 150 155 -Arg Leu Gly

<210> 6869 <211> 750 <212> PRT <213> Enterobacter cloacae

Leu Gly Thr Asp Val Ser Pro Asp Val Ala Pro Glu Ile Leu Leu 100 105 Lys Ser Arg Met Ile Leu Gly Glu Thr Val Asp Lys Leu Gly Leu Thr 120 125 Gln Gln Ala Lys Gln Arg Val Leu Pro Val Val Gly Arg Leu Trp Gln 135 140 Arg Leu Gln Gly Arg Gly Gln Gly Lys Ile Thr Leu Gly Glu Leu Gln 150 155 Ile Pro Gln Val Glu Gly Lys Ala Gln Glu Leu Thr Leu Thr Val Gln 165 170 Glu Ala Gly Lys Tyr His Leu Lys Gly Glu Asn Ile Lys Ala Glu Gly 185 180 Arg Val Gly Lys Thr Leu Val Thr Gln Gly Ile Val Leu Leu Val Thr 200 Ser Ile Glu Ala Thr Pro Gly Thr Gln Phe Ser Leu Lys Ser Leu Thr 215 220 Arg Leu Glu Thr Ile Asn Ala Leu Lys Lys Ser Leu Thr Val Thr Glu 230 235 Ser Glu Lys Gln Ser Gly Ile Val Thr Leu Thr Leu Thr Gly Glu Asp 245 250 Pro Asp Asn Ile Ala Arg Val Leu Asn Ala Ile Ala Asp Asn Tyr Leu 260 265 270 Gln Gln Asn Ile Ala Arg Gln Glu Ala Gln Asp Ser Arg Ser Leu Asp 280 285 Phe Leu Gln Glu Gln Leu Pro Lys Ile Arg Ala Asp Leu Asp Gln Ala 300 295 Glu Ala Arg Leu Asn Ala Tyr Arg Ala Gln Arg Asp Ser Val Asp Leu 310 315 Ser Leu Glu Ala Lys Ser Val Leu Asp Gln Val Val Asn Val Glu Asn 325 330 Gln Leu Asn Glu Leu Thr Phe Arg Glu Ala Glu Ile Ser Gln Leu Phe 340 345 Lys Lys Ser His Pro Thr Tyr Arg Ala Leu His Glu Lys Arg Gln Thr 360 365 Leu Glu Arg Glu Arg Asp Arg Leu Asn Asn Arg Val Ser Ala Met Pro 375 380 Ser Thr Gln Gln Glu Ile Leu Arg Leu Ser Arg Asp Val Glu Ser Gly 390 395 Arg Thr Ile Tyr Leu Gln Leu Leu Thr Arg Gln Gln Glu Leu Asn Ile 405 410 Ser Arg Ser Ser Ala Val Gly Asn Val Arg Ile Ile Asp Glu Ala Val 425 Thr His Pro Asp Pro Ile Lys Pro Arg Lys Ala Leu Ile Ile Ile Leu 440 445 Gly Ala Leu Phe Gly Leu Met Leu Ala Met Gly Thr Val Leu Val Arg 455 460 Gln Ala Phe Lys Arg Gly Ile Thr Leu Ser Glu Gln Leu Glu Ala Gln 470 475 Gly Leu Pro Val Leu Ala Thr Leu Pro Arg Ser Gln Trp Leu Trp Ser 485 490 Lys Thr His Leu Arg Arg Lys Asn Pro Phe Ser Arg Arg Trp Lys His 500 505 510 Lys Thr Ser Asp Val Pro Phe Leu Pro Val Asp Arg Pro Ala Asp Met 520 525 Phe Val Glu Ala Val Arg Gly Leu Arg Thr Ser Leu Tyr Phe Ala Met 535 540 Met Glu Ala Glu Asn Arg Ile Val Met Ile Ser Gly Pro Thr Gln Asp 550 555 Cys Gly Lys Thr Leu Val Ala Thr Asn Leu Ala Ala Val Ala Gly Gln 565 570 Ser Gly Gln Arg Val Leu Phe Ile Asp Ala Asp Met Arg Gln Gly Tyr

590 580 585 Val His Asn Ile Phe Gly Leu Glu Asn Arg Tyr Gly Leu Ser Cys Leu 600 605 Leu Glu Gly Lys Cys Asp Phe Thr Glu Val Ile Gln His Ala Glu Lys 620 615 Ala Gly Ile Asp Val Ile Thr Cys Gly Pro Glu Pro Leu Arg Pro Leu 630 635 Glu Leu Leu Ser Glu Arg Phe Leu Asp Ile Met Ser Trp Val Asn 650 Glu Gln Tyr Asp Ile Val Ile Ile Asp Thr Pro Pro Val Leu Ala Val 665 Thr Asp Ala Ser Leu Val Ala Arg Ala Ala Gly Thr Thr Leu Met Val 680 Ala Arg Phe Asp Lys Thr Ser Val Lys Glu Met Glu Asn Thr Val Lys 695 700 Arg Leu Gln His Val Gly Val Lys Val Ser Gly Thr Ile Leu Asn Asp 710 715 Ile Val Lys Ser Ala Ala Leu Phe Tyr Ser Ser Gly Tyr Ser Gln Cys 730 725 Asp Tyr Gly Tyr Ala Ser Arg Lys Lys Gly Asp Arg Arg 740

<210> 6870 <211> 168

<212> PRT

<213> Enterobacter cloacae

<400> 6870

Cys Gln Arg Arg Glu Val Arg Cys Leu Pro Gly His Arg Phe Phe Thr His Gly Arg Ser Glu Thr Met Gln Pro Asp Leu Leu Asp Ser His Val 20 25 Leu His Gln Phe Arg Thr Arg Ser Pro Leu Thr His Cys Met Thr Asn 40 Asp Val Val Gln Thr Phe Thr Ala Asn Val Leu Leu Ala Leu Gly Ala 55 Ser Pro Ala Met Val Ile Glu Ala Glu Glu Ala Glu Gln Phe Ala Ala 70 75 Leu Ala Asp Ala Leu Leu Ile Asn Val Gly Thr Leu Thr Ala Pro Arg 90 Ala Gln Ser Met Arg Arg Ala Ile Glu Ser Ala Val Ala Ala Gly Thr 105 Pro Trp Val Leu Asp Pro Val Ala Val Gly Ala Leu Ala Phe Arg Thr 120 Arg Phe Cys Gln Gln Ile Leu Ser Leu Lys Pro Ala Ala Ile Arg Gly 135 140 Asn Ala Ser Glu Ile Leu Ala Leu Ala Gly Met Ser Ala Gly Gly Arg 150 155 Gly Val Asp Ser Thr Asp Thr Ala

<210> 6871

<211> 164

<212> PRT

<213> Enterobacter cloacae

165

<400> 6871

Pro Tyr Arg Asn Gly Ser Leu-His Gln Ile Val Ala Ala Ile Met Phe 1 5 10 15 Lys Ser Ile Leu Val Val Cys Thr Gly Asn Ile Cys Arg Ser Pro Ile 20 25 . 30 Gly Glu Arg Leu Leu Arg Gln His Leu Pro Asp Arg His Ile Ala Ser 40 Ala Gly Ile Tyr Gly Leu Glu Gly Cys Pro Ala Asp Asp Ser Ala Gln 55 60 Asp Val Ala Trp Arg His Gly Ile Ser Leu Asp Gly His Val Ala Arg 70 75 Arg Leu Thr Arg Asn Leu Met Gln Gly Ser Asp Leu Ile Leu Val Met 85 90 Glu Pro Glu His Leu Arg Phe Ile Ala Ala Met Ala Pro Glu Ser Arg 105 Gly Lys Ser Leu Leu Phe Gly Gln Trp Leu Glu Pro Gln Asp Ile Pro 120 Asp Pro Tyr Arg Lys Ser Arg Glu Ala Phe Glu Tyr Val Phe Gly Leu 135 140 Leu Gly Lys Ala Ser Gln Glu Trp Ala Arg Arg Leu Gly Gln Lys Gly 150 155 Met Lys His

<210> 6872 <211> 380

<212> PRT

<213> Enterobacter cloacae

<400> 6872 Gly Leu Ile His Lys Asn Lys Gly Val Gly Met Ser Ser Gln Ser Gln 10 Ala Lys Ser Pro Glu Ala Leu Arg Ala Met Val Ala Gly Thr Leu Ala 20 Asn Phe Gln His Pro Thr Leu Lys His Asn Leu Thr Thr Leu Lys Ala 40 Leu His His Val Ala Trp Leu Asp Asp Thr Leu His Ile Glu Leu Gln Met Pro Phe Val Trp Thr Ser Ala Phe Asp Ala Leu Lys Glu Gln Thr 75 Ser Ser Glu Leu Leu Arg Ile Thr Gly Ala Lys Ala Ile Asp Trp Lys 90 Leu Ser His Ser Ile Ala Thr Leu Lys Arg Val Lys Asn Gln Pro Gly 105 Val Asn Gly Val Lys Asn Ile Ile Ala Val Ser Ser Gly Lys Gly Gly 120 125 Val Gly Lys Ser Ser Thr Ala Val Asn Leu Ala Leu Ala Leu Ala Ala Glu Gly Ala Lys Val Gly Ile Leu Asp Ala Asp Ile Tyr Gly Pro Ser 150 Ile Pro Asn Met Leu Gly Ala Glu Asn Gln Arg Pro Thr Ser Pro Asp 165 170 Gly Thr His Met Ala Pro Ile Val Ala His Gly Leu Ala Thr Asn Ser 185 180 Ile Gly Tyr Leu Val Thr Asp Asp Asn Ala Met Val Trp Arg Gly Pro 195 200 205 Met Ala Ser Lys Ala Leu Leu Gln Met Leu Gln Glu Thr Met Trp Pro 215 220 Asp Leu Asp Tyr Leu Val Leu Asp Met Pro Pro Gly Thr Gly Asp Ile 230 235 Gln Leu Thr Leu Ala Gln Asn Ile Pro Val Thr Gly Ala Val Val Val 250 245 Thr Thr Pro Gln Asp Ile Ala Leu Ile Asp Ala Lys Lys Gly Ile Val 265 270 Met Phe Glu Lys Val Lys Val Pro Val Leu Gly Ile Val Glu Asn Met 280

Ser Met His Ile Cys Ser Asn Cys Gly His His Glu Pro Ile Phe Gly 295 300 Thr Gly Gly Ala Glu Lys Leu Ala Ala Gln Tyr His Thr Gln Leu Leu 310 315 Gly Gln Met Pro Leu His Ile Ser Leu Arg Glu Asp Leu Asp Ser Gly 325 330 Lys Pro Thr Val Val Ser Arg Pro Asp Ser Glu Phe Ala Gln Met Tyr 340 345 Arg Gln Leu Ala Gly Arg Val Ala Ala Gln Leu Tyr Trp Gln Gly Glu 360 Val Ile Pro Gly Glu Ile Ala Phe Arg Ala Val 375

<210> 6873 <211> 401

<212> PRT

<213> Enterobacter cloacae

<400> 6873 Asn Gly Lys Asn His Phe Gly Thr Tyr Ser Ile Ile Asn Thr Ile Lys 10 Arg Tyr Phe Tyr Ser Met Lys Asn Thr Thr Val Phe Ser Ile Leu Phe 20 25 Leu Ile Ile Thr Pro Leu Ser Gly Cys Val Phe Ser Pro Gly Gln His 40 Leu Asp Leu Ala Gly Lys Gln Val Met Thr Thr Glu Asn Ala Asn Asp 55 60 Arg Leu Glu Lys Arg Ile Asp Val Tyr Pro Leu Thr Pro Ser Leu Ile 70 Glu Lys Leu Arg Pro Ser Ala Leu Lys Ser Gln Ala Asn Pro Lys Leu 90 85 Asp Glu Gln Val Lys Asn Trp Glu Tyr Arg Ile Gly Val Gly Asp Ile 100 105 110 Leu Thr Val Thr Val Trp Asp His Pro Glu Leu Thr Thr Pro Ala Gly 115 120 125 Gln Tyr Arg Ser Ala Ser Asp Thr Gly Asn Trp Val Asn Ala Asp Gly 135 140 Thr Leu Phe Tyr Pro Tyr Val Gly Lys Leu Gln Val Ala Gly Lys Thr 150 155 Val Ala Arg Val Arg Glu Glu Ile Thr Ala Arg Leu Asn Asn Val Ile 165 170 Glu Ser Pro Gln Val Asp Val Ser Val Ala Ser Phe Arg Ser Gln Lys 185 190 Ala Tyr Val Thr Gly Glu Val Val Lys Ser Gly Gln Gln Ala Ile Thr 200 Asn Ile Pro Leu Thr Val Met Asp Ala Val Asn Ala Ala Gly Gly Leu 215 Ser Ala Asp Ala Asp Trp Arg Asn Val Val Leu Thr His Asn Gly Lys 230 235 Asp Met Arg Leu Ser Leu Tyr Ala Leu Met Gln His Gly Asp Leu Thr 245 250 Gln Asn Lys Leu Tyr Pro Gly Asp Ile Leu Phe Val Pro Arg Asn 265 Asp Ala Leu Lys Val Phe Val Met Gly Glu Val Val Lys Gln Ser Thr 280 285 Leu Lys Met Asp Arg Ser Gly Met Thr Leu Ala Glu Ala Leu Gly Asn 295 300 Ala Gly Gly Leu Asn Gln Asn Met Ala Asp Ala Thr Gly Ile Phe Val 310 315 Ile Arg Ser Leu Pro Lys Ser Glu Arg Ser Glu Lys Ile Ala Asn Ile 330

<210> 6874 <211> 280 <212> PRT <213> Enterobacter cloacae <400> 6874 Ala Ile Thr Asp Ala Gln Met Lys Asp Ser Ile Ser Asn Tyr Ile Leu 10 Ser Trp Val Glu Glu Asn Asn Phe Thr Ile Leu His Ile Gly Asp Leu 20 25 Val Ala Asp Ile Gly Tyr Ser Arg Arg Thr Ile Glu Thr Trp Phe Lys 35 40 Glu Lys Tyr Arg Leu Ser Leu Gly Glu Tyr Ile Leu Arg Arg Arg Leu 5.5 Ser Arg Ala Ala Ile Met Leu Arg Met Thr Ser Ile Pro Val Thr Asp 70 75 Ile Ala Tyr Leu Phe His Tyr Gln Ser Ser Gln Gly Phe Ser Arg Ala 90 85 Phe Lys Lys Met Met Gly Leu Thr Pro Ser Glu Tyr Arg Cys Ala Arg 100 105 110 Gly Trp Asn Phe Asp Ile Leu Gln Pro Ser Phe Leu Leu Ser Glu His 120 Glu Thr Pro Glu Leu Glu Val Cys Tyr Leu Asp Glu Thr Phe Ile Tyr 135 140 Thr His Glu Phe Ile Glu His Asp His Leu Phe Asp Thr Ser Val His 150 155 Asp Ile Thr Lys Lys Ile Lys Lys Leu Leu Thr Glu Asn Arg His Asp 165 170 Ile Asp Lys Ile Ile Leu Met Pro Arg Pro Glu Leu Gly Lys Ser 185 180 190 Arg Ser Tyr Leu Val Glu Val Leu Ile Ser Tyr Ala Leu Gln Ser Asp 195 200 205 Thr Val Thr Asn Lys Lys Ser Cys Ile Val Arg Gly Arg Tyr Ala Arg 215 220 Met Pro Phe Ser Gly Ser Trp Glu Ile Tyr Ser Ala Phe Asn Lys Ile 230 235 Ala Phe Val Lys Ala Met Val Asn Gln Arg Leu Thr Leu Arg Asp Gly 250 Ile Tyr Leu Met Lys Ile Asn Gly Tyr Ser Asp Glu Cys Val Asp Phe 260 265 Asp Val Phe Ile Pro Ile Leu 280

<210> 6875

<211> 254

<212> PRT

<213> Enterobacter cloacae

<400> 6875

Met Asp Ala Met Asn Ser Arg Gln Gln Ile Ile Leu Gln Met Val Ile

2960

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Asp Gln Gly Arg Val Ser Val Val Asp Leu Ala Lys Ala Thr Gly Val
                                25
Ser Glu Val Thr Ile Arg Gln Asp Leu Asn Leu Leu Glu Lys Gln Ser
                            40
Tyr Leu Arg Arg Ala His Gly Tyr Ala Val Pro Leu Asp Ser Asp Asp
                        55
Val Glu Thr Arg Met Met Asn Asn Tyr Ala Leu Lys Arg Glu Leu Ala
                                        75
                   70
Glu Phe Ala Ala Ser Leu Val Asn Asn Gly Glu Thr Val Phe Ile Glu
                85
                                    90
Asn Gly Ser Ser Asn Ala Leu Leu Ala Arg Thr Leu Ala Asp Gln Lys
                               105
Asp Val Thr Ile Ile Thr Val Ser Ser Tyr Ile Ala His Leu Leu Lys
                            120
Asp Thr Arg Cys Glu Val Ile Leu Leu Gly Gly Ile Tyr Gln Lys Lys
                        135
Ser Glu Ser Met Val Gly Pro Leu Thr Arg Gln Tyr Val Gln Gln Val
                    150
His Phe Ser Lys Ala Phe Ile Gly Ile Asp Gly Trp Gln Pro Asp Thr
                165
                                    170
Gly Phe Thr Gly Arg Asp Met Met Arg Ser Asp Val Val Asn Ala Val
            180
                                185
Leu Ala Lys Glu Cys Glu Ala Ile Val Leu Thr Asp Ser Ser Lys Phe
                            200
Gly Ala Val His Pro Tyr Thr Met Gly Pro Ala Ser Arg Phe Ser Arg
                        215
                                            220
Val Ile Thr Asp Glu Arg Leu Arg Asp Glu Tyr Arg Gln Gln Leu Glu
                    230
                                        235
Gln Asp Gly Leu Thr Val Asp Ile Val Lys Lys Thr Ala
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<210> 6876
<211> 81
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<212> PRT

<213> Enterobacter cloacae

<220>

<221>UNSURE

<222>(53)

<400> 6876

50 55 60

Phe Asp Phe Glu Ile Lys Val Ile Ala Arg Ile Pro Thr Pro Ala Asn
65 70 75 80

<sup>&</sup>lt;210> 6877

<sup>&</sup>lt;211> 334

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Asp Gln Gly Thr Pro Met Glu Gln Arg Arg Phe Ser Gly Lys Gly His 10 Trp Tyr His Glu Thr Gln Ser Asn His Ser Gln Thr Asp Val Leu Pro 25 20 Leu Val Pro Glu Ala Ala Asn Val Asp Asp Arg Phe Leu Leu Asp Leu 40 Ala Leu Pro Asp Asp Ile Leu Ala Ser Cys Ala Gly Trp Leu Ala Pro 55 60 Ala Arg Thr Leu Cys His Leu Leu Phe Pro Leu Asp Thr Pro Val Ser 70 75 Arg Leu His Thr Leu Ser Ala Tyr Asp Arg Leu Ser Thr Ala Leu Thr 90 Val Ala Gln Ala Cys Gly Val Gln Arg Leu Cys Asn His Tyr Ala Ala 105 Leu Leu Ala Pro Leu Pro Gly Pro Asp Ser Ser Arg Glu Ser Asn Arg 120 Arg Leu Ala Glu Ile Thr Gln Tyr Ala Arg Gln Leu Ala Ser Ser Pro 135 140 Asp Val Ile Asp Asp Lys Ala Gln Asn Gln Leu Asp Glu Val Gly Leu 150 155 Thr Thr Tyr Asp Ile Val Leu Ile Asn Gln Ile Ile Gly Phe Val Gly 165 170 Phe Gln Ala Arg Val Val Ala Val Phe Gln Ala Leu Leu Gly His Pro 180 185 190 Val Arg Trp Leu Pro Gly His His Ile Gln Pro His Thr Leu Pro Val 200 205 195 Ser Phe Ser Arg Trp Thr Ala Thr Leu Pro Ala Val Glu Leu Lys Tyr 215 220 Ala Ser Ala Leu Gln Leu Glu Ala Leu Ser Arg Trp Gln Ala Glu Pro 235 230 Ala Leu Glu Ala Leu Thr Pro Val Leu Cys His Glu Pro Met Leu Leu 245 250 Asn Leu Thr Gly Glu Ile Leu Leu Asn His Pro Leu Ser Glu Gly Pro 260 265 270 Ala Ser Ser Met Ile Ser Ala Ala Leu Ala Leu Leu Val Ala Ser Pro 275 280 Asp Arg Phe Ser Ala Thr Gln Leu Thr Pro Leu Thr Gly Ser Gly Leu 295 300 Ser Pro Glu Lys Ala Ile Asn Leu Leu Thr Arg Asp Ala Phe Tyr Gly 310 Trp Leu Asn Arg Leu Arg Val Ala Leu Gly Lys Glu Glu 325 330

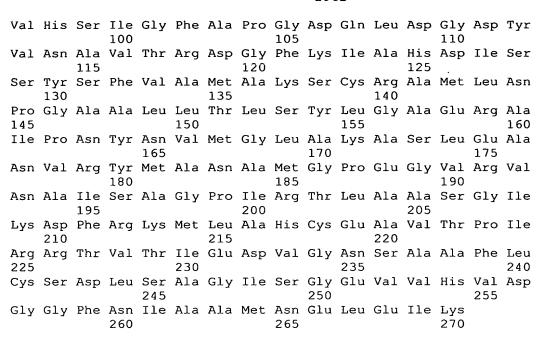
<210> 6878

<211> 271

<212> PRT

<213> Enterobacter cloacae

#### <400> 6878



<210> 6879

<211> 647

<212> PRT

<213> Enterobacter cloacae

245

<400> 6879 Asn Ile Met Phe Gln Asp Asn Pro Leu Leu Ala Gln Leu Lys Gln Gln Leu His Ser Gln Thr Pro Arg Ala Glu Gly Val Val Lys Ala Thr Glu Lys Gly Phe Gly Phe Leu Glu Val Asp Gly Gln Lys Ser Tyr Phe Ile 40 Pro Pro Pro Gln Met Lys Lys Val Met His Gly Asp Arg Ile Ser Ala 55 Val Ile His Thr Glu Lys Glu Arg Glu Ser Ala Glu Pro Glu Ala Leu 70 Ile Glu Pro Phe Leu Thr Arg Phe Val Gly Lys Val His Lys Lys Asp 90 Asp Arg Leu Ser Val Val Pro Asp His Pro Leu Leu Lys Asp Ala Ile 105 Pro Cys Arg Ala Ala Arg Gly Val Glu His Asp Phe Val Glu Gly Asp 120 Trp Ala Val Ala Glu Met Arg Arg His Pro Leu Lys Gly Asp Arg Gly 135 Phe Tyr Ala Glu Leu Thr Gln Tyr Ile Thr Phe Gly Asp Asp His Phe 150 155 Val Pro Trp Trp Val Thr Leu Ala Arg His Asn Leu Glu Lys Glu Ala 170 165 Pro Asp Gly Val Ala Thr Glu Met Gln Asp Glu Gly Leu Glu Arg Arg 180 185 Asp Leu Thr Ala Leu Asp Phe Val Thr Ile Asp Ser Ala Ser Thr Glu 200 Asp Met Asp Asp Ala Leu Tyr Ala Glu Glu Thr Ala Asp Gly Lys Leu 215 220 His Leu Thr Val Ala Ile Ala Asp Pro Thr Ala Trp Ile Val Glu Gly 230 235 Ser Lys Leu Asp Glu Met Ala Lys Val Arg Ser Phe Thr Asn Tyr Leu

Pro Gly Phe Asn Ile Pro Met Leu Pro Arg Glu Leu Ser Asp Asp Leu 265 260 Cys Ser Leu Arg Ala His Glu Val Arg Pro Val Leu Ala Cys Arg Met 280 Thr Ile Ala Ala Asp Gly Thr Ile Glu Glu Asp Ile Glu Phe Phe Ala 295 300 Ala Thr Ile Glu Ser Lys Ala Lys Leu Ala Tyr Asp Asp Val Ser Asp 310 315 Trp Leu Glu Asn Thr Gly Asn Trp Lys Pro Glu Ser Asp Asn Ile Ala 325 330 Ala Gln Ile Arg Leu Leu His Arg Val Cys Leu Ser Arg Ser Glu Trp 340 345 Arg Gln Thr His Ala Leu Val Phe Lys Asp Arg Pro Asp Tyr Arg Phe 360 365 Val Leu Gly Glu Lys Gly Glu Val Leu Asn Ile Val Ala Glu Pro Arg 375 Arg Ile Ala Asn Arg Ile Val Glu Glu Ala Met Ile Ser Ala Asn Ile 390 395 Cys Ala Ala Arg Val Leu Arg Asp Lys Leu Gly Phe Gly Ile Tyr Asn 405 410 Val His Thr Gly Phe Asp Pro Ala Asn Thr Glu Ala Leu Ala Ala Leu 420 425 Leu Lys Thr His Asp Val His Val Asp Pro Glu Glu Val Leu Thr Leu 440 Gln Gly Phe Cys Lys Leu Arg Arg Glu Leu Asp Ala Gln Pro Ser Gly 455 460 Phe Leu Asp Ser Arg Ile Arg Arg Phe Gln Ser Phe Ala Glu Ile Ser 475 470 Thr Glu Pro Gly Pro His Phe Gly Leu Gly Leu Glu Ala Tyr Ala Thr 485 490 Trp Thr Ser Pro Ile Arg Lys Tyr Gly Asp Met Val Asn His Arg Leu 500 505 Leu Lys Ala Ile Ile Lys Gly Glu Ser Val Ala Arg Pro Gln Asp Gly 520 525 Thr Thr Leu Gln Met Ala Glu Arg Arg Leu Asn Arg Met Ala Glu 540 535 Arg Asp Val Gly Asp Trp Leu Tyr Ala Arg Phe Leu Asn Asp Lys Ala 550 555 Gly Thr Asp Thr Arg Phe Pro Ala Glu Ile Ile Asp Ile Ser Arg Gly 565 570 Gly Met Arg Val Arg Leu Val Asp Asn Gly Ala Val Ala Phe Ile Pro 580 585 Ala Pro Phe Leu His Ala Val Arg Asp Glu Leu Val Cys Ser Gln Glu 600 605 Asn Gly Thr Val Gln Ile Lys Gly Glu Thr Val Tyr Lys Val Thr Asp 615 620 Val Ile Asp Val Thr Ile Ala Glu Val Arg Met Glu Thr Arg Ser Ile 630 Ile Ala Arg Pro Val Ala

<210> 6880

<211> 675

<212> PRT

<213> Enterobacter cloacae

<400> 6880

Arg Leu Thr Ala Asp Ser Asn Ala Leu His Leu Ala Ala Ser Glu Ser 40 Ala Asp Ile Ile Gln Val Val Ala Leu Asp Asp Glu Gln Ala Ala Leu 55 Ile Arg Gln Leu Thr Val Ile Thr Ser Ser Ile Ala Met Thr Leu Pro 75 Leu Tyr Gly Val Asp Val Pro Val His Leu Val Gly Arg Lys Ile Asn 85 90 Lys Asn Glu Trp Ala Gly Thr Ala Ser Ala Trp Asn Asp Thr Pro Ser 105 100 Val Ala Arg Asp Leu Ala Gln Gly Leu Ser Phe Ala Glu Gln Val Val 120 125 Ser Glu Ala Asn Ser Val Ile Val Ile Leu Asp Gln Asn Gly Asn Ile 135 140 Gln Arg Phe Asn Arg Leu Ser Glu Glu Tyr Thr Gly Leu Lys Glu Gln 150 155 Glu Val Ile Gly Gln Asn Val Phe Lys Leu Phe Met Ser Arg Ser Glu 170 165 Ala Ala Ser Lys Arg Asn Ile Thr Gly Phe Phe Arg Asn Gly Ser 185 Ser Tyr Glu Val Glu Arg Trp Ile Lys Thr Arg Lys Gly Gln Arg Leu 200 Phe Leu Phe Arg Asn Lys Phe Val His Ser Gly Ser Gly Lys Asn Glu 215 220 Ile Phe Leu Ile Cys Ser Gly Thr Asp Ile Thr Glu Glu Arg Arg Ala 230 235 Gln Glu Arg Leu Arg Val Leu Ala Asn Thr Asp Thr Ile Thr Gly Leu 245 250 Pro Asn Arg Asn Ala Ile His Glu Leu Ile Ser Asp Ala Ile Thr Ala 260 265 Arg Gly Asp Thr Gln Val Gly Val Val Tyr Leu Asp Leu Asp Asn Phe 280 285 Lys Lys Val Asn Asp Ala Tyr Gly His Met Phe Gly Asp Gln Leu Leu 295 300 Gln Ala Val Ala Leu Ala Ile Leu Ser Cys Leu Asp Glu Gly Gln Thr 315 310 Leu Ala Arg Leu Gly Gly Asp Glu Phe Ile Val Met Ala Thr Asp Thr 325 330 Ser Gln Gly Ala Leu Glu Ala Met Ala Ser Arg Ile Leu Thr Arg Leu 345 340 Arg Gln Pro Phe Arg Ile Gly Leu Ile Glu Val Tyr Thr Gly Cys Ser 360 Leu Gly Ile Ala Leu Ala Pro Gln His Gly Asn Asp Arg Glu Ser Val 375 380 Ile Arg Asn Ala Asp Thr Ala Met Tyr Thr Ala Lys Glu Asn Gly Arg 390 395 Gly Lys Phe Cys Val Phe Ser Pro Glu Met Asn Gln Arg Val Phe Glu 410 Tyr Leu Trp Leu Asp Thr Asn Leu Arg Lys Ala Leu Asp Asn Asp Gln 425 Leu Leu Ile His Tyr Gln Pro Lys Met Thr Trp Arg Gly Glu Val Arg 440 Ser Leu Glu Ala Leu Val Arg Trp Gln Ser Pro Glu Arg Gly Leu Ile 455 460 Pro Pro Met Glu Phe Ile Ser Tyr Ala Glu Glu Ser Gly Leu Ile Val 470 475 Pro Leu Gly Arg Trp Val Met Leu Asp Val Arg Gln Val Ala Lys 485 490 Trp Arg Asp Lys Gly Ile Asn Met Arg Val Ala Val Asn Val Ser Ala 505 Arg Gln Leu Ala Asp Gln Thr Ile Phe Ser Asp Leu Lys Gln Ala Leu

520 Lys Asp Leu Asn Phe Glu Tyr Cys Pro Ile Asp Val Glu Leu Thr Glu 535 540 Ser Cys Leu Ile Glu Asn Glu Glu Leu Ala Leu Ser Val Ile Gln Gln 555 550 Phe Ser Arg Leu Gly Ala Gln Ile His Leu Asp Asp Phe Gly Thr Gly 565 570 Tyr Ser Ser Leu Ser Gln Leu Ala Arg Phe Pro Ile Asp Ala Ile Lys 580 585 590 Leu Asp Gln Ser Phe Val Arg Asp Ile His Lys Gln Ser Ile Ser Gln 600 605 Ser Leu Val Arg Ala Ile Val Ala Val Ala Gln Ala Leu Asn Leu Gln 615 620 Val Ile Ala Glu Gly Val Glu Ser Ala Lys Glu Asp Ala Phe Leu Thr 630 635 Lys Asn Gly Val Asn Glu Arg Gln Gly Tyr Leu Phe Ala Lys Pro Met 650 Pro Ala Ala Ala Phe Glu Arg Trp Leu Lys Arg Tyr Gln Thr Arg Asn

Val Arg

675

<210> 6881 <211> 81

<212> PRT

<213> Enterobacter cloacae

<400> 6881

Ile Asp Asn Ser Gly Glu Ser Ile Met Thr Phe Thr Ser Lys Lys Leu 10 Ala Ala Val Val Ala Ile Thr Val Ala Met Ser Leu Ser Ala Cys 20 25 Ser Asn Trp Ser Lys Arg Asp Arg Asn Thr Ala Ile Gly Ala Gly Ala 40 Gly Ala Leu Gly Gly Ala Val Leu Thr Asp Asp Ser Thr Leu Gly Thr 55 60 Leu Gly Gly Ala Ala Val Gly Gly Ile Ile Gly His Gln Val Gly Lys

<210> 6882 <211> 117 <212> PRT <213> Enterobacter cloacae

<400> 6882

Cys Ile Thr Glu Lys Gly Gly Ile Met Arg Asp Ala Asn Ser Arg Leu 10 Val Tyr Ser Thr Asp Thr Gly Arg Ile Glu Glu Pro Lys Glu Lys Ala 25 Glu Arg Pro Lys Gly Asp Gly Ile Val Arg Ile Gln Arg Gln Thr Ser 40 Gly Arg Lys Gly Lys Gly Val Cys Leu Val Thr Gly Ile Asp Leu Asp 55 Asp Ala Asp Leu Val Lys Leu Ala Ala Glu Leu Lys Lys Lys Cys Gly 70 75 Cys Gly Gly Ala Val Lys Asp Gly Ile Ile Glu Ile Gln Gly Asp Lys 90 Arg Asp Leu Ile Lys Thr Leu Leu Glu Ala Lys Gly Met Lys Val Lys 105

Leu Ala Gly Gly 115 <210> 6883 <211> 290 <212> PRT <213> Enterobacter cloacae <400> 6883 Gly Gly Gly Arg Leu Phe Phe Ile Pro Ala Val Lys Thr Phe Asp Ser Val His Leu Pro Arg Gly Gln Val Glu Cys Thr Pro Phe Ile Cys Ser Ala Pro Leu Arg Ala His Arg Arg Lys Gly Leu Val Met Thr Ser Val Thr Ser Ser Thr Ser Arg Val Val Thr Asp Ser Pro Val Val Val Ala Leu Asp Tyr Asn Asn Arg Asp Ala Ala Leu Ala Phe Val Asp Gly Ile Asp Pro Arg Asp Cys Arg Leu Lys Val Gly Lys Glu Met Phe Thr Leu 85 90 Phe Gly Pro Gln Ile Val Arg Asp Leu His Gln Arg Gly Phe Asp Val 105 Phe Leu Asp Leu Lys Phe His Asp Ile Pro Asn Thr Thr Ala His Ala 120 Val Ala Ala Ala Glu Leu Gly Val Trp Met Val Asn Val His Ala 135 Ser Gly Gly Ala Arg Met Met Thr Ala Ala Arg Glu Ala Leu Val Pro 150 155 Phe Gly Asn Asp Ala Pro Leu Leu Ile Ala Val Thr Val Leu Thr Ser 165 170 Met Asp Glu Ser Asp Leu Arg Asp Leu Gly Val Thr Leu Ser Pro Ala 180 185 Glu His Ala Glu Arg Leu Ala Arg Leu Thr Gln Gln Cys Gly Leu Asp 195 200 Gly Val Phe Cys Ser Ala Gln Glu Ala Val Arg Phe Lys Ser Glu Leu 220 215 Gly Arg Asp Phe Lys Leu Val Thr Pro Gly Ile Arg Pro Ala Gly Ser 230 235 Glu Ser Gly Asp Gln Arg Arg Ile Met Thr Pro Glu Gln Ala Leu Ser 245 250 Ala Gly Val Asp Tyr Met Val Ile Gly Arg Pro Val Thr Gln Ser Ala 265 His Pro Ala Glu Thr Leu Lys Ala Ile Asn Ala Ser Leu Lys Lys Gly 280 Ala 290 <210> 6884 <211> 469 <212> PRT <213> Enterobacter cloacae <400> 6884 Asn Cys Ala Arg Val Asp Asn Gly Tyr Ala Ile Leu Arg Leu Tyr Leu Cys Ala Val Arg Arg Lys Met Lys Asn Ile Thr Leu Ala Glu Lys Leu 25 Ile Met Leu Ser Gly Ala Ala Leu Phe Ala Leu Ile Ile Ala Val Asn

Ser Phe Cys Val Asn Asp Asn Pro Gly Phe Arg Val Pro Met Thr Thr

2967

	50 ·					55					60				
Tyr 65	Leu		Val	Met	Ile 70		Leu	Phe	Phe	Leu 75		Thr	Ile	Ile	Phe 80
Ile	Phe	Ile	Gln	Met 85	Leu	Tyr	Ala	Ser	Asp 90	Arg	Ser	Arg	Phe	Ser 95	Leu
Phe	Ile	Leu	Ser 100	Leu	Ala	Phe	Leu	Ser 105	Gly	Leu	Val	Tyr	Phe 110	Ile	Glu
Thr	Ile	Ile 115	Val	Ile	Gln	Leu	Pro 120	Glu	His	Ala	Gly	Phe 125	Thr	Gln	Ala
Ala	Lys 130	Thr	Asn	Asp	Thr	Ala 135	Val	Phe	Tyr	Phe	Phe 140	Arg	Gln	Leu	Ser
145	Ile				150					155					160
_	Ser			165					170					175	
	Met		180					185					190		
_	His	195		_			200					205			
	Tyr 210					215					220				
225	Ser				230	_				235					240
-	Ile	-		245					250					255	_
	Phe		260					265					270		
	Ser	275					280					285			
	Met 290					295					300				
305	Arg	_			310					315					320
	Leu			325					330					335	
	Met		340					345					350		
	Leu	355					360					365			
_	Ser 370		_	_		375					380				
385	Gly				390					395	•				400
	Glu	_		405					410					415	
	Tyr		420					425					430		
	Ile	435					440					445			
	Ala 450		_	Glu	Ala	Lys 455	His	Asn	GLY	ьуs	460	Arg	11e	vaı	Thr
Arg 465	Gln	Ala	Glu												
<213	0> 68 1> 30	)5													

<400> 6885

<213> Enterobacter cloacae

<212> PRT

Ser Lys Thr Ala Arg Asn Ala Leu Phe Tyr Lys Arg Asn Ser Thr Met

10 Thr Val Ile Asn Gln Thr Thr Cys Thr Leu Phe Thr Asp Ala Glu Arg 25 Phe Thr Gln Leu Ala Ala Tyr Tyr Glu Ala Glu Arg Arg Thr Val Trp 40 Met Met Leu Arg Ala Thr Pro Arg Pro Cys Phe Asn His Ala Leu Ile Glu Glu Ile Met Asn Leu Ser Trp Leu Val Arg Gln Ser Gly Phe Val 70 75 Val Asp Phe Trp Val Thr Gly Ser Leu Val Pro Asp Ile Tyr Asn Thr 90 85 Gly Gly Asp Leu Gln Phe Phe Val Glu Cys Ile Lys Asn Asn Arg Arg 105 100 Glu Ala Leu Arg Ala Tyr Ala Arg Ala Cys Val Asp Cys Val His Ala 125 120 Ala Ser Arg Gly Phe Asp Thr Gly Ala Val Thr Leu Ala Met Val Glu 135 140 Gly Ser Ala Leu Gly Gly Gly Phe Glu Ala Ala Leu Ala His His Phe 150 155 Ile Leu Ala Gln Arg Asp Ala Arg Leu Gly Phe Pro Glu Ile Ala Phe 170 Asn Leu Phe Pro Gly Met Gly Gly Tyr Ser Leu Val Ala Arg Arg Ala 185 190 Gly Met Lys Met Ala Glu Ala Leu Ile Tyr Lys Gly Glu Thr His Thr 200 Ala Glu Trp Tyr Glu Gln His Gly Leu Val Asp Leu Leu Phe Glu Pro 215 Leu Gln Ser Tyr Val Ser Val Arg Thr Phe Ile Asp Thr Leu Gln Pro 230 235 Lys Leu Asn Gly Val Arg Ala Met Leu Arg Ala Arg Thr Arg Val Leu 250 Pro Leu Pro Arg Ser Glu Leu Met Asp Ile Thr Glu Asp Trp Val Asp 265 Ala Ala Phe Cys Leu Glu Pro Lys Asp Ile Ala Tyr Met Glu Arg Leu 280 Val Met Leu Gln Asn Arg His Gln Ala Thr Gly Leu Arg Lys Ala Ser

305

<210> 6886

<211> 441

<212> PRT

<213> Enterobacter cloacae

# <400> 6886

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120
                                                125
Gly Thr Glu Ala Thr Met Ser Ala Ile Arg Leu Ala Arg Gly Phe Thr
                       135
                                            140
Gly Arg Asp Lys Ile Ile Lys Phe Glu Gly Cys Tyr His Gly His Ala
                    150
                                        155
Asp Cys Leu Leu Val Lys Ala Gly Ser Gly Ala Leu Thr Leu Gly Gln
                                    170
Pro Asn Ser Pro Gly Val Pro Ala Asp Phe Ala Lys His Thr Leu Thr
                                185
Cys Thr Tyr Asn Asp Leu Asp Thr Val Arg Ala Ala Phe Glu Gln Tyr
                            200
        195
Pro Gln Glu Ile Ala Cys Ile Ile Val Glu Pro Val Ala Gly Asn Met
                        215
                                            220
Asn Cys Ile Pro Pro Gln Pro Asp Phe Leu Pro Gly Leu Arg Ala Leu
                    230
                                        235
Cys Asp Glu Phe Gly Ala Leu Leu Ile Ile Asp Glu Val Met Thr Gly
                245
                                    250
Phe Arg Val Ala Leu Ala Gly Ala Gln Ser Tyr Tyr Gly Val Glu Pro
            260
                                265
Asp Leu Thr Cys Leu Gly Lys Ile Ile Gly Gly Gly Met Pro Val Gly
                            280
                                                 285
Ala Phe Gly Gly Arg Lys Asp Val Met Asp Ala Leu Ala Pro Thr Gly
                        295
                                             300
Pro Val Tyr Gln Ala Gly Thr Leu Ser Gly Asn Pro Ile Ala Met Ala
                    310
                                         315
Ala Gly Phe Ala Cys Leu Thr Glu Val Ala Gln Pro Gly Ile His Gln
                325
                                    330
Thr Leu Thr Asp Arg Thr Thr Gln Leu Ala Asn Gly Leu Leu Glu Ala
                                345
Ala Glu Asp Ala Gly Ile Pro Leu Val Val Asn His Val Gly Gly Met
                            360
Phe Gly Ile Phe Phe Thr Glu Ala Lys Thr Val Thr Cys Tyr Gln Asp
                        375
                                             380
Val Val Lys Cys Asp Val Glu Arg Phe Lys Arg Phe Phe His Leu Met
                    390
                                        395
Leu Glu Glu Gly Val Tyr Leu Ala Pro Ser Ala Phe Glu Ala Gly Phe
                                    410
Met Ser Val Ala His Ser Glu Glu Asp Ile Asn Asn Thr Ile Asp Ala
                                425
            420
Ala Arg Lys Val Phe Ala Lys Leu
<210> 6887
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<211> 195

<212> PRT

<213> Enterobacter cloacae

#### <400> 6887

Met Leu Tyr Gln Ser Phe Pro Gln Ala Glu Arg Ala Val Pro Ala Gln 10 Ala Ala Tyr Met Thr Leu Trp Thr Met Gln Gln Val Gln Arg Gly 20 25 Thr Gly Arg Gln Leu Gly Ala Lys Tyr Pro Gly Leu His Leu Ala Gly 40 Lys Thr Gly Thr Thr Asn Asn Asn Val Asp Thr Trp Phe Ala Gly Ile 55 Asp Gly Arg Glu Val Val Ile Thr Trp Val Gly Arg Asp Asn Asn Gln 70 75 Pro Thr Lys Leu Tyr Gly Ala Ser Gly Ala Met Ser Ile Tyr Gln Arg 90 Tyr Leu Ala Asn Gln Ser Pro Val Pro Leu Asn Leu Val Ala Pro Glu

105 Asp Ile Val Asp Met Gly Val Asp Ser Ser Gly Asn Phe Ile Cys Gly 120 Gly Gly Val Arg Thr Leu Pro Val Trp Thr Thr Asn Pro Asp Ala Leu Cys Gln Gln Ser Gln Pro Glu Glu Pro Thr Gly Asn Pro Phe Asp Gln 150 155 170 165 Glu Lys Lys Asp Ser Asp Gly Val Ala Gly Trp Ile Lys Asp Met Phe 185

Gly Gly Asn 195

<210> 6888

<211> 778

<212> PRT

<213> Enterobacter cloacae

<400> 6888 Thr Leu Asn Ser Cys Arg Ala Ala Tyr Arg Leu Leu Cys Arg Gln Arg 10 Phe Ala Tyr Tyr Ser Ala Val Ile Ile Ile Leu Val Tyr Val Ile Ile His Leu Phe His Gln Arg Ser Ile Met Ala Leu Ser Asn Thr Ala Gln Pro Ile Asn Thr Ser Leu Arg Lys Leu Ala Val Val Ala Thr Ala Val Ala Gly Met Ser Ala Tyr Ala Gln Ala Ala Glu Thr Pro Lys Lys Glu Glu Thr Ile Thr Val Thr Ala Ala Pro Ala Ala Gln Glu Ser 85 Ala Trp Gly Pro Ala Pro Thr Ile Ala Ala Lys Arg Thr Ala Thr Ala 105 100 110 Thr Lys Thr Asp Thr Pro Ile Glu Lys Thr Pro Gln Ser Ile Ser Val 120 125 Val Thr Arg Glu Glu Met Asp Met Lys Gln Pro Gly Thr Val Lys Gln 135 140 Ala Leu Ala Tyr Thr Pro Ser Val Phe Ala Thr Arg Gly Ala Ser Thr 155 150 Thr Tyr Asp Val Val Ser Ile Arg Gly Phe Thr Thr Ser Ser Thr Val 165 170 Asn Thr Asn Gln Tyr Leu Asp Gly Met Lys Leu Gln Gly Asp Asn Tyr 185 190 180 Ser Glu Ala Ser Met Asp Pro Tyr Phe Leu Glu Arg Val Glu Leu Leu 205 200 Arg Gly Pro Thr Ser Val Leu Tyr Gly Lys Ser His Pro Gly Gly Val 215 220 Val Ser Met Val Ser Lys Arg Pro Thr Thr Glu Pro Leu Lys Glu Ile 235 230 Gln Phe Lys Met Gly Thr Asp Asn Leu Trp Gln Thr Gly Phe Asp Phe 250 Ser Asp Ala Ile Asp Asp Gly Val Trp Ser Tyr Arg Leu Thr Gly 265 Leu Gly Arg Ser Glu Asn Ala Gln Gln Glu Met Val Lys Ser Thr Arg 280 Tyr Ala Ile Ala Pro Ser Phe Ser Trp Arg Pro Asp Asp Lys Thr Asp 295 300 Phe Thr Phe Leu Ser Asn Phe Gln Ser Asp Pro Asp Ala Gly Tyr Tyr 310 315 Gly Trp Leu Pro Arg Glu Gly Thr Val Val Pro Tyr Tyr Asp Ala Asn

325 330 Gly Lys Ala His Lys Leu Pro Thr Asp Phe Asn Glu Gly Asp Glu Asp 345 Asn Lys Ile Ser Arg Arg Gln Lys Met Val Gly Tyr Ser Phe Ala His 360 Glu Phe Asn Asp Thr Phe Thr Val Arg Gln Asn Leu Arg Tyr Thr Lys 375 Ile Asn Thr Leu Tyr Arg Ser Val Tyr Gly Asn Gly Tyr Ile Ala Pro .390 395 Ala Gln Ile Ser Arg Ala Tyr Val Arg Ser Asp Glu Asp Leu Asn Ser 405 410 Phe Thr Val Asp Thr Gln Leu Gln Ser Lys Phe Ala Thr Gly Ala Val 425 430 420 Asp His Thr Leu Leu Thr Gly Val Asp Tyr Leu Arg Met Arg Asn Asp 440 Ile Asp Ala Asp Tyr Gly Thr Ala Asp Pro Ile Ser Met Asn Asn Pro 455 460 Gln His Gly Asn Ala Asn Val Asn Val Asn Phe Pro Tyr Ala Met Leu 470 475 Asn Arg Gln Glu Gln Thr Gly Leu Tyr Ala Gln Asp Gln Ala Glu Trp 490 Asp Lys Trp Val Leu Thr Leu Gly Gly Arg Tyr Asp Phe Ala Lys Thr 505 Ser Ala Phe Asn Arg Asn Asn Gly Thr Thr Ala Glu Ile Asn Asp Gln 520 Ala Phe Thr Trp Arg Gly Gly Ile Asn Tyr Leu Phe Asp Asn Gly Ile 535 Thr Pro Tyr Phe Ser Tyr Ser Glu Ser Phe Glu Pro Leu Ser Gly Thr 550 555 Thr Gln Gly Gly Lys Pro Phe Asp Pro Ala Arg Gly Lys Gln Tyr Glu 570 565 Ala Gly Val Lys Tyr Val Pro Lys Asp Leu Pro Val Val Val Thr Ala 580 585 Ala Val Tyr Gln Leu Thr Lys Asn Asn Asn Leu Thr Ala Asp Pro Ala 595 600 Asn Pro Thr Ser Gly Phe Ser Val Gln Gly Glu Ile Arg Ser Arg 615 620 Gly Phe Glu Leu Glu Ala Lys Ala Ala Val Ser Ala Asn Val Asn Val 635 630 Thr Ala Ala Tyr Ser Tyr Thr Asp Ala Glu Tyr Thr His Asp Thr Trp 645 650 Tyr Glu Gly Arg Arg Pro Ala Glu Val Pro Arg Asn Met Ala Ser Leu 665 Trp Ala Asp Tyr Thr Phe His Glu Thr Ala Leu Ser Gly Leu Thr Val. 680 685 675 Gly Ala Gly Ala Arg Tyr Ile Gly Asn Thr Val Thr Tyr Tyr Ser Ser 700 695 Ala Ser Pro Lys Ala Tyr Glu Ser Phe Asn Val Ala Gly Tyr Ala Leu 710 715 Ala Asp Ala Thr Val Lys Tyr Asp Leu Ala Arg Phe Gly Leu Pro Gly 725 730 Ser Ser Val Gly Val Asn Val Asn Asn Ile Phe Asp Arg Glu Tyr Val 745 Ser Ser Cys Tyr Ser Glu Tyr Ala Cys Tyr Trp Gly Ala Gly Arg Gln 760 Val Val Ala Thr Ala Thr Phe Arg Phe 770

<sup>&</sup>lt;210> 6889

<sup>&</sup>lt;211> 714

<sup>&</sup>lt;212> PRT

### <213> Enterobacter cloacae

<400> 6889 Ala Arg Asp Ala Asn Pro Asp Gly Asp Ser Ala Leu Ala Gly Asn Ala 10 Val Arg Pro Arg Ala Ala Leu Pro Ala Arg Ala Ser Gly Met Val Leu Arg Arg Asp Ala Val Gly His Ala Phe Cys Pro Arg Ala Gly Gln Cys 40 Thr Gly Arg Gln Gly Met Ser Thr Arg Met Ala Arg Phe Pro Met Leu 55 Leu Leu Ala Ile Ile Phe Leu Ala Ala Leu Ala Leu Thr Gly Phe Asn 70 75 Leu Thr Thr Ala Leu Pro Arg Glu Gln Trp Ala Ala Ala Phe Ala Ala 90 85 Pro Asp Ile Asp Asn Ile Gln Gln Met Leu Phe His Tyr Ser Leu Leu 100 105 Pro Arg Leu Ala Ile Ser Leu Leu Val Gly Ala Gly Leu Gly Leu Val 120 Gly Val Leu Phe Gln Gln Val Leu Arg Asn Pro Leu Ala Glu Pro Thr 135 140 Thr Leu Gly Val Ala Thr Gly Ala Gln Leu Gly Ile Thr Ile Thr Thr 150 155 Leu Trp Thr Leu Pro Gly Ala Leu Thr Ser Gln Phe Ala Ala Leu Ala 170 Gly Ala Cys Val Val Gly Ala Leu Val Phe Gly Val Ala Trp Gly Lys 185 190 Arg Leu Ser Pro Val Thr Leu Ile Leu Ala Gly Leu Val Val Ser Leu 195 200 Tyr Cys Gly Ala Ile Asn Gln Leu Leu Val Leu Phe His His Asp Gln 215 Leu Gln Ser Met Phe Met Trp Ser Thr Gly Thr Leu Thr Gln Thr Asp 235 230 Trp Ser Ile Val Gln Arg Leu Trp Pro Gln Leu Phe Gly Gly Val Val 250 Leu Thr Leu Leu Leu Arg Pro Leu Thr Leu Met Gly Leu Asp Asp 265 Gly Val Ala Arg Asn Leu Gly Leu Ala Leu Ser Leu Ala Arg Leu Ala 280 Ala Leu Thr Leu Ala Ile Val Leu Ser Ala Leu Leu Val Asn Ala Val . 295 Gly Ile Ile Gly Phe Ile Gly Leu Phe Ala Pro Leu Ala Lys Met 310 315 Leu Gly Ala Arg Arg Leu Leu Ala Arg Leu Met Leu Ala Pro Leu Ile 330 325 Gly Ala Leu Ile Leu Trp Leu Ser Asp Gln Leu Ile Leu Trp Leu Thr 345 Arg Val Trp Met Glu Val Ser Thr Gly Ser Val Thr Ala Leu Ile Gly 360 365 Ala Pro Leu Leu Trp Leu Leu Pro Arg Leu Arg Ser Ile Ser Ala 380 375 Pro Ala Met Asp Ala Gly Asp Lys Val His Ala Glu Arg Gln Ser Val 390 395 Val Trp Phe Ser Leu Ala Gly Leu Ala Val Leu Val Ile Ala Ser Phe 405 410 Ala Ala Leu Ser Leu Gly Arg Asp Ala Thr Gly Trp His Trp Ala Thr 425 Gly Asp Leu Leu His Glu Leu Met Gln Trp Arg Trp Pro Arg Ile Phe 440 Ser Ala Leu Ile Ala Gly Val Met Leu Ala Val Ala Gly Cys Ile Ile

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Gln Arg Leu Thr Gly Asn Pro Met Ala Ser Pro Glu Val Leu Gly Ile
                    470
                                        475
Ser Ser Gly Ala Ala Phe Gly Val Val Leu Met Leu Phe Leu Val Pro
                                    490
Gly Asn Ala Phe Gly Trp Leu Met Pro Ala Gly Ser Ile Gly Ala Ala
                                505
Val Thr Leu Met Ile Ile Leu Ile Ala Ser Gly Arg Gly Phe Ser
                            520
                                                525
Pro His Arg Met Leu Leu Ala Gly Met Ala Leu Ser Thr Ala Phe Thr
                        535
                                            540
Met Leu Leu Met Met Leu Gln Ala Ser Gly Asp Pro Arg Met Ala Gln
                    550
                                        555
Ile Leu Thr Trp Ile Ser Gly Ser Thr Tyr Asn Ala Thr Gly Ser Gln
                                    570
                565
Val Val His Thr Gly Ile Val Met Ile Val Leu Leu Ala Ile Val Pro
                                585
                                                     590
            580
Leu Cys Arg Arg Trp Met Thr Ile Leu Pro Leu Gly Gly Asp Thr Ala
                            600
        595
                                                 605
Arg Ala Val Gly Leu Ala Leu Thr Pro Thr Arg Ile Ala Leu Leu Leu
                        615
                                            620
Leu Ala Ala Cys Leu Thr Ala Thr Ala Thr Met Thr Ile Gly Pro Leu
                    630
                                        635
Ser Phe Val Gly Leu Met Ala Pro His Ile Ala Arg Met Met Gly Phe
                645
                                    650
Arq Arq Thr Leu Pro His Ile Ala Ile Ser Ala Leu Thr Gly Gly Ala
                                665
                                                     670
            660
Ile Leu Val Phe Ala Asp Trp Cys Gly Arg Met Val Leu Phe Pro Tyr
                            680
Gln Ile Pro Ala Gly Leu Leu Ser Thr Phe Ile Gly Ala Pro Tyr Phe
                        695
                                            700
Ile Tyr Leu Leu Arg Lys Gln Ser Arg
                    710
<210> 6890
<211> 275
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<212> PRT

<213> Enterobacter cloacae

## <400> 6890

Asn Pro Cys Gly His Leu Tyr Asp Glu Thr Glu Gln Val Met Asn Glu 10 Asn Thr Pro Ser Phe Glu Gln Gln Gln Phe Thr Arg Ala Lys Arg Arg 25 Val Ser Ile Arg Arg Leu Leu Asn Arg Asp Lys Thr Pro Leu Ala Ile 40 Leu Leu Ala Ala Ala Val Val Gly Thr Leu Ala Gly Leu Val Gly Val 5.5 Ala Phe Glu Lys Ala Val Asn Ala Val Leu Asn Trp Arg Ile Gly Thr 70 75 Val Ala Ser Phe Ala Asp Arg Glu Trp Leu Val Trp Val Trp Ala Phe 8.5 90 Gly Leu Ser Ala Leu Phe Ala Met Val Gly Tyr Phe Leu Val Arg Lys 100 105 110 Phe Ala Pro Glu Ala Gly Gly Ser Gly Ile Pro Glu Ile Glu Gly Ala 120 125 Leu Glu Glu Leu Arg Pro Val Arg Trp Trp Arg Val Leu Pro Val Lys 135 140 Phe Ile Gly Gly Met Gly Thr Leu Gly Ala Gly Met Val Leu Gly Arg 150 155 Glu Gly Pro Thr Val Gln Leu Gly Gly Asn Val Gly Arg Met Val Gly 170

Asp Leu Phe Arg Met Arg Ser Ala Glu Ala Arg His Thr Leu Leu Ala 180 185 Thr Gly Ala Ala Ala Gly Leu Ser Ala Ala Phe Asn Ala Pro Leu Ala 200 205 Gly Ile Leu Phe Ile Ile Glu Glu Met Arg Ala Gln Phe Arg Tyr Asn 215 220 Leu Ile Ser Ile Lys Ala Val Phe Asn Gly Val Ile Met Ser Ser Ile 235 230 Val Phe Arg Val Phe Asn Gly Glu Gly Ala Val Ile Glu Val Gly Lys 245 250 Leu Thr Asn Ala Pro Val Ile Leu His Tyr Asp Ala Ala Asp Ala Thr 265 Tyr Pro His 275 <210> 6891 <211> 325 <212> PRT <213> Enterobacter cloacae <400> 6891 Arg Asn Ala Gly Thr Tyr Leu Arg Tyr Ser Tyr Gly His Pro Ala Ser 10 Pro Gly Arg Gly Cys Thr Arg Glu Leu Cys Leu Leu Met Leu Asp Ser 20 Thr Phe Ile Ser Arg Arg Leu Leu Thr Ala Met Ala Leu Ser Pro Leu Leu Leu Lys Met Gly Pro Ala Arg Ala Ala Ile Asp Pro His Arg Ile Val Ala Leu Glu Trp Leu Pro Val Glu Leu Met Met Ala Leu 75 Gly Val Thr Pro Tyr Gly Val Ala Asp Ile Pro Asn Tyr Thr Leu Trp 90 85 Val Asn Glu Pro Lys Leu Pro Asp Ser Val Ile Asp Ile Gly Leu Arg 105 Thr Glu Pro Asn Leu Glu Leu Leu Thr Gln Met Lys Pro Ser Tyr Leu 120 Phe Trp Ser Ala Gly Tyr Gly Pro Ser Glu Glu Thr Met Ala Lys Ile 135 Ala Pro Gly Arg Gly Phe Ser Phe Ser Asp Gly Lys Lys Pro Leu Thr 150 155 Met Ala Lys Asn Ser Ile His Glu Met Ala Gln Phe Leu Asn Arg Glu 165 170 Ala Glu Ala Lys Lys His Leu Asp Glu Phe Asp Ala Leu Ile Asp Ser 185 180 190 Leu Lys Pro Arg Phe Ala His Arg Gly Asp Arg Pro Leu Leu Met Val 195 200 205 Thr Leu Leu Asp Ala Arg His Met Leu Val Phe Gly Asn Asn Cys Leu 215 220 Phe Gln Glu Val Leu Asp Ser Phe Gly Ile Arg Asn Ala Trp Glu Gly 230 235 Glu Met Thr Phe Trp Gly Ser Thr Ala Val Gly Ile Asp Arg Leu Ala 245 250 Ala Phe Arg Asp Val Asp Val Leu Cys Phe Asp His Gly Asn Glu Arg 265 270 Glu Met Gln Thr Leu Met Ala Thr Pro Leu Trp Gln Ala Met Pro Phe 280 Val Arg Glu Gln Arg Phe Leu Arg Ala Pro Ala Val Trp Phe Tyr Gly 295 Ala Thr Leu Ser Ala Met His Phe Ala Arg Val Leu Asp Asn Ala Leu 315

Gly Gly Lys Ala

325 <210> 6892 <211> 311 <212> PRT <213> Enterobacter cloacae <400> 6892 Ile Arg Leu Gln Leu Leu Gln Arg Val Cys Met Leu Leu Gly Ser Arg Thr Pro Gly Cys Cys His Gly Asp Leu Pro Leu Leu Thr Ser Leu Trp 25 Ala Arg Phe Ala Val Pro Phe Leu Phe Lys Leu Ala Asp Met Gln Asp 40 Asn Lys Thr Gln Ser Asp Ser Thr Phe Thr Leu Asn Asn Leu Ser Phe 55 Arg Val Pro Gly Arg Thr Leu Leu His Pro Leu Ser Leu Thr Phe Pro 70 75 Ala Gly Lys Val Thr Gly Leu Ile Gly His Asn Gly Ser Gly Lys Ser 85 90 Thr Leu Leu Lys Met Leu Gly Arg His Gln Pro Pro Ser Glu Gly Asp 100 105 110 Ile Leu Leu Asp Asp Gln Pro Leu Ala Ser Trp Ser Ser Lys Ala Phe 120 125 Ala Arg Lys Val Ala Tyr Leu Pro Gln Gln Leu Pro Gln Ala Glu Gly 135 140 Met Thr Val Arg Glu Leu Val Ala Ile Gly Arg Tyr Pro Trp His Gly 150 155 Ala Leu Gly Arg Phe Gly Val Ala Asp Arg Glu Lys Val Glu Glu Ala 165 170 Ile Ala Leu Val Gly Leu Lys Pro Leu Ala His Arg Leu Val Asp Ser 185 Leu Ser Gly Gly Glu Arg Gln Arg Ala Trp Ile Ala Met Leu Val Ala 200 Gln Asp Ser Arg Cys Leu Leu Asp Glu Pro Thr Ser Ala Leu Asp 215 220 Ile Ala His Gln Val Asp Val Leu Ala Leu Val His Arg Leu Ser Gln 230 235 Gln Arg Gly Leu Thr Val Ile Ala Val Leu His Asp Ile Asn Met Ala Ala Arg Tyr Cys Asp Tyr Leu Val Ala Leu Arg Gly Gly Glu Met Ile 265 Ala Gln Gly Thr Pro Ala Glu Leu Met Arg Ser Glu Thr Leu Glu His 280 Ile Tyr Gly Ile Pro Met Gly Ile Leu Pro His Pro Ala Gly Ala Ala 295 Pro Val Ser Phe Val Tyr <210> 6893 <211> 833 <212> PRT <213> Enterobacter cloacae <400> 6893 Ile Ile Ala Gly Gly Met Lys Lys Ile Ser Thr Gly Ala Asp Asn Gly 10 Gly Thr Asp Met Ser Gln Asp Pro Phe Gln Glu Arg Glu Ala Glu Lys

20 25 30 Tyr Ala Asn Pro Ile Pro Ser Arg Glu Phe Ile Ile Glu His Leu Thr

40 45 Lys Arg Glu Lys Pro Ala Asn Arg Glu Glu Leu Ala Val Glu Leu Asn 55 60 Ile Glu Gly Glu Glu Gln Ile Glu Ala Leu Arg Arg Leu Arg Ala 75 70 Met Glu Arg Asp Gly Gln Leu Val Phe Thr Arg Arg Gln Cys Tyr Ala 85 90 Leu Pro Glu Arg Leu Asp Leu Leu Lys Gly Thr Val Ile Gly His Arg 100 105 Asp Gly Phe Gly Phe Leu Arg Val Glu Gly Arg Lys Asp Asp Leu Tyr 120 125 Leu Ser Ser Glu Gln Met Lys Met Cys Ile His Gly Asp Gln Ile Leu 135 Ala Gln Pro Leu Gly Ala Asp Arg Lys Gly Arg Arg Glu Ala Arg Val 150 155 Val Arg Val Leu Val Pro Lys Thr Ser Gln Ile Val Gly Arg Tyr Phe 165 170 Thr Asp Ala Gly Val Gly Phe Val Val Pro Asp Asp Ser Arg Leu Ser 180 185 190 Phe Asp Ile Leu Ile Pro Pro Glu Glu Val Met Gly Ala Arg Met Gly 200 Phe Val Val Val Glu Leu Thr Gln Arg Pro Thr Arg Arg Thr Lys 210 215 220 Ala Val Gly Lys Ile Val Glu Val Leu Gly Asp Asn Met Gly Thr Gly 230 235 Met Ala Val Asp Met Ala Leu Arg Thr His Glu Ile Pro Tyr Val Trp 245 250 Pro Lys Ala Val Glu Asp Gln Ile Glu Asn Leu Arg Glu Glu Val Pro 265 260 Glu Glu Ser Lys Ala Gly Arg Val Asp Leu Arg Asp Leu Pro Leu Val 285 280 Thr Ile Asp Gly Glu Asp Ala Arg Asp Phe Asp Asp Ala Val Tyr Cys 295 . 300 Glu Lys Lys Arg Gly Gly Gly Trp Arg Leu Trp Val Ala Ile Ala Asp 310 315 Val Ser Tyr Tyr Val Arg Pro His Thr Pro Leu Asp Asn Glu Ala Arg 325 330 Ser Arg Gly Thr Ser Val Tyr Phe Pro Ser Gln Val Val Pro Met Leu 345 Pro Glu Val Leu Ser Asn Gly Leu Cys Ser Leu Asn Pro Gln Val Asp 360 Arg Leu Cys Met Val Cys Glu Met Thr Ile Ser Ser Lys Gly Arg Leu 375 380 Thr Gly Tyr Lys Phe Tyr Glu Ala Val Met Ser Ser His Ala Arg Leu 390 395 Thr Tyr Thr Lys Val Trp His Met Leu Gln Gly Asp Gln Asp Leu Arg 405 410 Glu Gln Tyr Ala Pro Leu Val Lys His Ile Glu Glu Leu His Asn Leu 420 425 430 Tyr Lys Thr Leu Asp Gln Ala Arg Glu Glu Arg Gly Gly Ile Ser Phe 440 445 Glu Ser Glu Glu Ala Lys Phe Ile Phe Asn Ala Glu Arg Arg Ile Glu 460 455 Arg Ile Glu Gln Thr Gln Arg Asn Asp Ala His Lys Leu Ile Glu Glu 470 475 Cys Met Ile Leu Ala Asn Ile Ser Ala Ala Arg Phe Val Glu Lys Ala 485 490 Lys Glu Pro Ala Leu Phe Arg Ile His Asp Lys Pro Thr Thr Glu Ala 505 Val Thr Ser Phe Arg Ser Val Leu Ala Glu Leu Gly Leu Glu Leu Pro 520

Gly Gly Asn Lys Pro Glu Pro Arg Asp Tyr Ala Glu Leu Leu Glu Ser 535 540 Ile Ser Asp Arg Pro Asp Ala Glu Met Leu Gln Thr Met Leu Leu Arg 550 555 Ser Met Lys Gln Ala Ile Tyr Asp Pro Glu Asn Arg Gly His Phe Gly 565 570 Leu Ala Leu Gln Ser Tyr Ala His Phe Thr Ser Pro Ile Arg Arg Tyr 585 Pro Asp Leu Ser Leu His Arg Ala Ile Lys Tyr Leu Leu Ala His Glu 600 Gln Gly His Lys Gly Asn Thr Thr Glu Thr Gly Gly Tyr His Tyr Ser 615 620 Met Glu Glu Met Leu Gln Leu Gly Gln His Cys Ser Met Thr Glu Arg 630 635 Arg Ala Asp Glu Ala Thr Arg Asp Val Ala Asp Trp Leu Lys Cys Asp 645 650 Phe Met Leu Asp Gln Val Gly Asn Ile Phe Lys Gly Val Ile Ala Ser 660 665 670 Val Thr Gly Phe Gly Phe Phe Val Arg Leu Asp Glu Leu Phe Ile Asp 675 680 685 Gly Leu Val His Val Ser Ser Leu Asp Asn Asp Tyr Tyr Arg Phe Asp 695 700 Gln Val Gly Gln Arg Leu Ile Gly Glu Ser Gly Gly Gln Thr Tyr Arg 710 715 Leu Gly Asp Arg Val Glu Val Lys Val Glu Ala Val Asn Met Asp Asp 725 730 735 Arg Lys Ile Asp Phe Ser Leu Ile Ser Ser Glu Arg Ala Pro Arg Asn 740 745 Val Gly Lys Thr Glu Arg Glu Lys Ala Lys Lys Gly Gly Asn Gly Lys 755 760 765 Ala Gly Gly Lys Arg Arg Gln Ala Gly Lys Arg Val Asn Phe Glu Pro 770 775 780 Asp Ser Ala Phe Arg Gly Glu Lys Lys Gln Lys Pro Lys Ala Ala Lys 790 795 Lys Asp Ala Arg Lys Ala Lys Lys Pro Ser Thr Lys Thr Gln Lys Ile 805 810 Ala Ala Ala Thr Lys Ala Lys Arq Ala Ala Lys Lys Gln Gln Ala Glu 820 825

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<210> 6894
<211> 265
<212> PRT
<213> Enterobacter cloacae
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<400> 6894

Phe Pro Leu Thr Leu Thr Leu Ser Pro Thr Gly Glu Gly Lys Tyr Leu 10 Leu Arg Glu Pro Ser Met Ser Glu Met Ile Tyr Gly Ile His Ala Val 25 Gln Ala Leu Leu Glu Arg Ala Pro Glu Arg Phe Gln Glu Val Phe Ile 40 45 Leu Lys Gly Arg Glu Asp Lys Arg Leu Met Pro Leu Ile His Ala Leu 55 60 Glu Ala Gln Gly Val Val Ile Gln Leu Ala Asn Arg Gln Tyr Leu Asp 70 75 Glu Lys Ser Glu Gly Ala Val His Gln Gly Ile Ile Ala Arg Val Lys 90 Pro Gly Arg Gln Tyr Gln Glu Asn Asp Leu Pro Asp Leu Ile Ala Glu

Leu Asp Asn Pro Phe Phe Leu Ile Leu Asp Gly Val Thr Asp Pro His 120 Asn Leu Gly Ala Cys Leu Arg Ser Ala Asp Ala Ala Gly Val His Ala 135 140 Val Ile Val Pro Arg Asp Arg Ser Ala Gln Leu Asn Ala Thr Ala Lys 150 155 Lys Val Ala Cys Gly Ala Ala Glu Asn Val Pro Leu Ile Arg Val Thr 165 170 Asn Leu Ala Arg Thr Met Arg Leu Leu Gln Glu Glu Asn Ile Trp Ile 180 185 Val Gly Thr Ala Gly Glu Ala Asp His Thr Leu Tyr Gln Ser Lys Met 200 Thr Gly Arg Met Ala Leu Val Met Gly Ala Glu Gly Glu Gly Met Arg 215 220 Arg Leu Thr Arg Glu His Cys Asp Glu Leu Ile Ser Ile Pro Met Ala 230 235 Gly Ser Val Ser Ser Leu Asn Val Ser Val Ala Thr Gly Ile Cys Leu 245 250 Phe Glu Ala Val Arg Gln Arg Gly 260

<210> 6895

<211> 464

<212> PRT

<213> Enterobacter cloacae

<400> 6895 Pro Gln Leu Ala Tyr Phe Arg Val Lys Lys Cys Cys Ile Ser Glu Lys 10 Ala Met Val Glu Ser Ile Phe Lys Gln Thr Val Ile Leu Lys Lys Met 20 Gly Asn Asn Val Val Leu Gly Thr Gln Trp Gly Asp Glu Gly Lys 40 Gly Lys Ile Val Asp Leu Leu Thr Glu Arg Ala Lys Tyr Val Val Arg 55 Tyr Gln Gly Gly His Asn Ala Gly His Thr Leu Val Ile Asn Gly Glu 70 Lys Thr Val Leu His Leu Ile Pro Ser Gly Ile Leu Arg Glu Asn Val 90 Thr Ser Ile Ile Gly Asn Gly Val Val Leu Ser Pro Ala Ala Leu Met 105 Lys Glu Met Lys Gly Leu Glu Asp Arg Gly Ile Pro Val Arg Glu Arg 120 Leu Leu Leu Ser Glu Ala Cys Pro Leu Ile Leu Asp Tyr His Val Ala 135 140 Leu Asp Val Ala Arg Glu Lys Ala Arg Gly Ala Lys Ala Ile Gly Thr 150 155 Thr Gly Arg Gly Ile Gly Pro Ala Tyr Glu Asp Lys Val Ala Arg Arg 170 165 Gly Leu Arg Val Gly Asp Leu Phe Asp Lys Ala Thr Phe Ala Glu Lys 185 Leu Lys Glu Val Met Glu Tyr His Asn Phe Gln Leu Val Asn Phe Tyr 200 205 Lys Ala Glu Ala Val Asp Tyr Gln Lys Val Leu Asp Asp Val Met Ala 215 220 Ile Ala Asp Ile Leu Thr Gly Met Val Val Asp Val Ser Asp Leu Leu 230 235 Asp Gln Ala Arg Lys Arg Gly Asp Phe Val Met Phe Glu Gly Ala Gln 245 250 Gly Thr Leu Leu Asp Ile Asp His Gly Thr Tyr Pro Tyr Val Thr Ser

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Ser Asn Thr Thr Ala Gly Gly Val Ala Thr Gly Ser Gly Leu Gly Pro
                            280
       275
Arg Tyr Val Asp Tyr Val Leu Gly Ile Ile Lys Ala Tyr Ser Thr Arg
                       295
                                            300
Val Gly Ala Gly Pro Phe Pro Thr Glu Leu Phe Asp Glu Thr Gly Glu
                    310
                                       315
Phe Leu Cys Lys Gln Gly Asn Glu Phe Gly Ala Thr Thr Gly Arg Arg
                               330
                325
Arg Arg Thr Gly Trp Leu Asp Ala Val Ala Val Arg Arg Ala Val Gln
                                345
            340
                                                    350
Ile Asn Ser Leu Ser Gly Phe Cys Leu Thr Lys Leu Asp Val Leu Asp
                            360
                                               365
Gly Leu Lys Glu Val Lys Ile Cys Val Gly Tyr Arg Met Pro Asp Gly
                        375
                                            380
Arg Glu Val Thr Thr Pro Leu Ala Ala Asp Asp Trp Glu Gly Ile
                    390
                                        395
Glu Pro Ile Tyr Glu Thr Met Pro Gly Trp Ser Glu Thr Thr Phe Gly
                                    410
Val Lys Glu Arg Ser Gly Leu Pro Lys Ala Ala Leu Asp Tyr Ile Lys
            420
                                425
                                                    430
Arg Ile Glu Glu Leu Thr Glu Val Pro Ile Asp Ile Ile Ser Thr Gly
                            440
Pro Asp Arg Thr Glu Thr Met Ile Leu Arg Asp Pro Phe Asp Ala
   450
                        455
<210> 6896
<211> 167
<212> PRT
<213> Enterobacter cloacae
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Leu Ser Gly Trp Phe Ile Ile Ile Asn Glu Tyr Leu Cys Gly Leu Thr
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Ala Phe Ser Leu Phe Pro Glu Val Asp Val Gln Leu Thr Ser Phe Thr
            20
                                25
Asp Tyr Gly Leu Arg Ala Leu Ile Tyr Met Ala Ser Leu Pro Asp Gly
        35
                            40
Lys Met Thr Ser Ile Ser Glu Val Thr Glu Val Tyr Gly Val Ser Arg
                        55
Asn His Met Val Lys Ile Ile Asn Gln Leu Ser Arg Ala Gly Tyr Val
                    70
Ala Ala Val Arg Gly Lys Asn Gly Gly Ile Arg Leu Gly Lys Pro Ala
                85
                                    90
Gln Ser Ile Arg Ile Gly Asp Val Val Arg Glu Leu Glu Pro Leu Ser
            100
                                105
Leu Val Asn Cys Ser Ser Ala Phe Cys His Ile Thr Pro Ala Cys Arg
                            120
Leu Lys Gln Ala Leu Ser Lys Ala Val Gln Ser Phe Leu Lys Glu Leu
                        135
Asp Asn Tyr Thr Leu Ala Asp Leu Val Glu Glu Asn Gln Pro Leu Tyr
                    150
                                        155
Lys Leu Leu Val Glu
<210> 6897
<211> 565
<212> PRT
<213> Enterobacter cloacae
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<400> 6897 Pro Pro Ser His Ala Ala Cys Met Pro Ser Val His Thr Tyr Leu Tyr

1	C1 =	T	T	5	C1	7.00	Co~	Mot	10	Т ч ч	C1 =	Th w	uio	15	Wa l
_			20					25					30		Val
Phe	Asn	Gln 35	Pro	Ala	Pro	Leu	Ser 40	Asn	Ser	Asn	Leu	Phe 45	Leu	Ser	Asp
Cys	Ala 50	Leu	Arg	Asp	Ala	Val 55	Ala	Arg	Glu	Gly	Ala 60	Glu	Trp	Asp	Val
Asp 65	Leu	Leu	Ala	Ser	Ile 70	Gly	Gln	Gln	Leu	Gly 75	Thr	Ala	Glu	Ser	Leu 80
Glu	Leu	Gly	Arg	Leu 85	Ala	Asn	Val	Asn	Pro 90	Pro	Glu	Leu	Leu	Arg 95	Tyr
Asp	Ala	Thr	Gly 100	Glu	Arg	Leu	Asp	Asp 105	Val	Arg	Phe	His	Pro 110	Ala	Trp
His	Leu	Leu 115	Met	Gln	Gly	Leu	Cys 120	Ala	Asn	Arg	Val	His 125	Asn	Leu	Ala
Trp	Glu 130	Glu	Glu	Ala	Arg	Lys 135	Gly	Ser	Phe	Val	Ala 140	Arg	Ala	Ala	Arg
Phe 145	Val	Leu	His	Ala	Gln 150	Val	Glu	Ala	Gly	Thr 155	Leu	Cys	Pro	Val	Thr 160
	Thr	Phe	Ala	Ala 165		Pro	Leu	Leu	Leu 170		Ser	Leu	Pro	Lys 175	
Phe	His	Asp	Trp 180	Leu	Thr	Pro	Leu	Met 185	Ser	Asp	Arg	Tyr	Asp 190	Pro	His
Leu	Ala	Pro 195	Gly	Ala	Gln	Lys	Arg 200	Gly	Leu	Leu	Ile	Gly 205	Met	Gly	Met
Thr	Glu 210	Lys	Gln	Gly	Gly	Ser 215	Asp	Vaļ	Leu	Ser	Asn 220	Thr	Thr	Lys	Ala
Glu 225	Lys	Cys	Ser	Asp	Gly 230	Ser	Tyr	Arg	Leu	Val 235	Gly	His	Lys	Trp	Phe 240
Phe	Ser	Val	Pro	Gln 245	Ser	Asp	Ala	His	Leu 250	Val	Leu	Ala	Gln	Ala 255	Lys
Gly	Gly	Leu	Ser 260	Cys	Phe	Phe	Val	Pro 265	Arg	Phe	Leu	Pro	Asp 270	Gly	Gln
Arg	Asn	Ala 275	Val	Arg	Leu	Glu	Arg 280	Leu	Lys	Asp	Lys	Leu 285	Gly	Asn	Arg
	290		Ser			295					300				
Leu 305	Gly	Glu	Glu	Gly	Glu 310	Gly	Val	Arg	Gln	Ile 315	Leu	Lys	Met	Gly	Gly 320
			Phe	325					330					335	
Ala	Leu	Ser	Val 340	Ala	Leu	Tyr	His	Ala 345	His	Gln	Arg	Gln	Thr 350	Phe	Gly
Lys	Asn	Leu 355	Ile	Asp	Gln	Pro	Leu 360	Met	Arg	Asp	Val	Leu 365	Ser	Arg	Met
Ala	Leu 370	Val	Leu	Glu	Gly	His 375	Thr	Ala	Leu	Leu	Phe 380	Arg	Leu	Ala	Arg
Ala 385	Trp	Asp	Asn	Arg	Thr 390	Asp	Pro	Gln	Glu	Ala 395	Ala	Trp	Ala	Arg	Leu 400
Phe	Thr	Pro	Ala	Ala 405	Lys	Tyr	Ser	Val	Cys 410	Lys	Ala	Gly	Ile	Pro 415	Phe
Val	Ala	Glu	Ala 420	Met	Glu	Val	Leu	Gly 425	Gly	Ala	Gly	Tyr	Cys 430	Glu	Glu
Ser	Glu	Leu 435	Pro	Arg	Leu	Tyr	Arg 440	Glu	Met	Pro	Val	Asn 445	Ser	Ile	Trp
Glu	Gly 450	Ser	Gly	Asn	Ile	Met 455	Cys	Leu	Asp	Val	Leu 460	Arg	Val	Leu	Ala
Lys 465	Gln	Ser	Gly	Ile	Leu 470	Asp	Leu	Leu	Ala	Asp 475		Phe	Ala	Gln	Val 480
Lys	Gly	Gln	Asp	Arg 485	His	Phe	Asp	Arg	Ser 490	Trp	Arg	Gln	Leu	Gln 495	Gln

 Lys
 Leu
 Arg
 Lys
 Pro
 Gln
 Glu
 Ala
 Gln
 Gly
 Arg
 Glu
 Ile
 Ala
 Arg
 Gln

 Leu
 Phe
 Leu
 Leu
 Gly
 Ala
 Gly
 Ser
 Gln
 Met
 Leu
 Arg
 His
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 Thr
 Pro

 Pro
 Val
 Ala
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 Ala
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 Cys
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 Met
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 Asp
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Ser Ser Val Glu Glu Thr Ser Ala Ser Met Glu Gln Leu Ala Ala Thr
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                                    250
Val Gln Gln Asn Ala Ala Asn Met Glu Gln Thr Gln Gln Leu Val Gly
                                265
Glu Thr Ser Arg Ala Val His Gln Gly Gly Glu Thr Val Thr His Ala
                            280
Val Ser Thr Met Asp Asp Ile Arg Asp Ala Ser Lys Arg Ile Glu Asp
                        295
                                             300
Ile Thr Arg Val Ile Glu Ser Ile Ala Phe Gln Thr Asn Ile Leu Ala
                                        315
                    310
Leu Asn Ala Ala Val Glu Ala Ala Arg Ala Gly Glu His Gly Lys Gly
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                                    330
Phe Ala Val Val Ala Gln Glu Val Arg Ala Leu Ala Ala Arg Ser Ala
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            340
Asn Ala Val Lys Glu Ile Glu Gln Leu Ile Gly Asp Thr Leu Asn Lys
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Val Ser Glu Gly His Ala Leu Ser Glu Gln Thr Arg Leu Ala Met Asp
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                                             380
Ala Ile Ile Val His Ile Asp Asn Ile Ser Gln Leu Val Thr Glu Ile
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                                         395
Asn His Ala Ser Arg Glu Gln Ser Ala Gly Ile Gly Gln Val Asn Leu
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                                    410
Ala Met Thr His Ile Gly Glu Ala Ser His Ile Asn Ala Asp Arg Ile
            420
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<212> PRT

<213> Enterobacter cloacae

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                                               205
Gln Ala Val His Leu Arg Val Glu Gly Thr Gln Ala Val Gly Glu His
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                                          220
Phe Trp Gln His Arg Tyr Asn Leu Arg Arg Glu Val Asp Arg Cys Thr
                  230
                                      235
Ala Ala Arg Phe Val Ile Gln Arg Arg Val Trp Thr Tyr Val Val
                                   250
               245
Ala His Ile Arg Asp Ser His Pro Gln Thr Pro Ala Thr Thr Thr Phe
                               265
Phe Leu Thr Val His Gly Ile Ile Glu Val Thr Gly Val Phe Thr Ile
                           280
Asn Gly Asp Gln Arg Gln Ile Ala Gln Ile His Ala Ala Cys Phe Gly
                       295
Leu Phe Arg His Phe Phe Thr Gln Val Phe Asp Leu Val Phe Asn Arg
                   310
                                       315
Phe Arg Pro Asp Val Arg Asn Phe Met Gly Ala Gln Arg His Ile Asp
                325
                                   330
Gly His Ala Gly Ala His Val Ile Ala Gln His Phe Asn Asp Phe Thr
                               345
            340
His Arg Phe Cys Ala Thr Ser Trp Ala Leu Gly Glu Phe Asn His His
                           360
                                               365
His Lys Ala His Ala Cys Ala His Tyr Leu Phe Arg Arg Asp Glu Asn
    370
                       375
                                           380
Val Glu Ala Gln Thr Ala Val Val Arg His His Lys Ala Tyr Ala Arg
                                        395
                   390
Ile Gly Lys Val Thr Ala Asn Asp Leu Ala Gly Phe Arg His Gln His
                                   410
                405
Ala Asp His Ala Arg Phe Ala Ala Ala Phe Thr Val Cys Thr Gln Arg
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Leu Arg Gln Asp Leu Val Ala Val Asn Thr His Leu His Leu Phe Gly
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<212> PRT <213> Enterobacter cloacae

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135

<210> 6902 <211> 437

<212> PRT <213> Enterobacter cloacae

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                                25
Ala Trp Leu Glu Glu Thr Leu Ile Ser Tyr Gly His Asp Asp Ala Ser
Val Ile Asp Val Ser Glu Leu Asp Gly Met Leu Thr Ala Val Leu Ser
                        55
Gly Pro Val Val Val Glu Pro Asp Thr Trp Leu Val Ala Val Trp Gly
                                        75
Gly Glu Lys Tyr Ile Pro Arg Trp Lys Asn Asp Arg Glu Met Asn Arg
                                    90
Phe Ile Asp Leu Cys Phe Lys His Met Asn Asp Ile Ala Glu Arg Leu
            100
                                105
Ser Glu Tyr Pro Asp Gln Phe Glu Pro Leu Phe Gly Tyr Asn Asp Val
                            120
                                                125
Asp Gly Gln Ser Tyr Thr Val Val Glu Glu Trp Cys Tyr Gly Tyr Met
                                            140
                        135
Arg Gly Val Ala Leu Thr Asp Trp Ser Ser Leu Pro Glu Ala Leu Glu
                    150
                                        155
Ala Asp Leu Ala Val Ile Ala Leu His Gly Thr Glu Glu Asn Ser Glu
                165
                                    170
Lys Leu Asp Ala Leu Thr Glu Glu Glu Tyr Met Ala Ser Ile Glu Ser
                                                     190
            180
                                185
Ile Gln Pro Ala Ala Leu Arg Leu Tyr Asp Tyr Trp Val Ala Asn Pro
                            200
                                                205
Gln Gln Pro Glu Ala Lys Lys Pro Ile Val Asn Gly Ser Lys Leu Gly
                                        . 220
                        215
Arg Asn Asp Pro Cys Pro Cys Gly Ser Gly Lys Lys Phe Lys Ser Cys
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                                        235
Cys Leu His
<210> 6904
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Ser Ala Phe Tyr Leu Arg Glu Val Thr Met Ser Ile His Gly His Asp
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Val Leu Asn Met Met Ile Glu Ser Gly Glu Arg Tyr Thr Glu Glu Ser
                                25
Leu Val Glu Ala Ile His Ala Arg Phe Gly Glu Ala Ala Arg Phe His
                            40
Thr Cys Ser Ala Ser Glu Met Thr Ala Ala Glu Leu Val Ala Phe Leu
                        55
Ala Ala Arg Gly Lys Phe Ile Pro Ala Ala Asp Gly Phe Ser Thr His
                    70
                                       75
Glu Ser Lys Ile Cys Arg His
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<210> 6905
<211> 311
<212> PRT
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## <213> Enterobacter cloacae

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85 90 95

Tyr Lys Cys Gln Gly Tyr Ala Val Thr Ser Ser Ser Gln Asn Pro Trp
100 105 110

Tyr

<210> 6907 <211> 431 <212> PRT

<213> Enterobacter cloacae

<400> 6907

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Pro Glu Leu Leu Arg Ser Phe Ala Glu Tyr Arg Val Leu Leu Phe Gly

390 395 Met Leu Met Val Val Met Met Ile Trp Arg Pro Arg Gly Leu Ile Arg 410 405 Ile Asn Arg Ser Gly Phe Thr Val Arg Lys Gly Val Ala Pro 425 420 <210> 6908 <211> 429 <212> PRT <213> Enterobacter cloacae <400> 6908 Phe Asp Glu Thr Gly Leu Phe Pro Tyr Ser Ala Pro Gln Asn Glu Ser Arg Tyr Gly Ser Val Val Glu Glu Ser Val Lys Asn Arg Thr Leu Gly 25 Ser Ile Phe Ile Val Ala Gly Thr Thr Ile Gly Ala Gly Met Leu Ala Met Pro Leu Ala Ala Ala Gly Val Gly Phe Gly Ile Thr Val Val Leu 55 Leu Gly Gly Leu Trp Ala Leu Met Cys Tyr Thr Ala Leu Leu Leu 70 75 Glu Val Tyr Gln His Val Pro Ala Asp Thr Gly Leu Gly Ser Leu Ala 90 8.5 Ala Arg Tyr Leu Gly Arg Tyr Gly Gln Trp Ile Ala Gly Phe Ser Met 100 105 Met Phe Leu Met Tyr Ala Leu Thr Ala Ala Tyr Ile Ser Gly Ala Gly 115 120 125 Glu Leu Ile Ala Ser Ser Ile Asn Asp Gly Phe Gly Ala Ser Leu Ser 135 140 Pro Glu Thr Gly Ala Ile Val Phe Thr Leu Ile Gly Gly Val Val 150 155 Cys Ala Gly Thr Ser Leu Val Asp Leu Phe Asn Arg Phe Leu Phe Ser 165 170 Ala Lys Ile Leu Phe Leu Val Val Met Leu Val Leu Leu Ala Pro His 185 180 190 Val His Lys Ile Asn Leu Leu Ser Leu Pro Leu Glu Lys Gly Leu Ala 195 200 Leu Ser Ala Ile Pro Val Ile Phe Thr Ser Phe Gly Phe His Gly Ser 215 220 Val Pro Ser Ile Val Ser Tyr Met Asn Gly Asp Ile Arg Lys Leu Arg 230 235 Arg Val Phe Val Ile Gly Ser Ala Ile Pro Leu Ile Ala Tyr Leu Phe 245 250 Trp Gln Leu Val Thr Leu Gly Ser Ile Asp Ser Asn Thr Phe Ile Gly 265 Leu Met Ala Glu His Ser Gly Leu Asn Gly Phe Leu Val Ala Leu Arg 280 Asn Val Val Ala Ser Ser His Val Glu Leu Ala Val His Leu Phe Ala 295 300 Asp Leu Ala Leu Ala Thr Ser Phe Leu Gly Val Ala Leu Gly Leu Phe 310 315 Asp Tyr Met Ala Asp Leu Phe Gln Arg Arg Asn Thr Val Ala Gly Arg 330 325 Leu Gln Thr Gly Ala Met Thr Phe Leu Pro Pro Leu Ala Phe Ala Leu 345 Phe Tyr Pro Arg Gly Phe Val Met Ala Leu Gly Tyr Ala Gly Val Ala 360 365 Leu Ser Val Leu Ala Leu Leu Leu Pro Ser Leu Leu Ala Trp Lys Ser 375

Arg Gln Gln His Pro Gln Gln Gly Tyr Arg Val Ala Gly Gly Thr Pro

390 395 Met Leu Cys Val Val Phe Gly Cys Gly Val Ala Ile Ile Leu Val Gln 405 410 Ile Leu Ile Ala Ala Gly Met Leu Pro Glu Val Gly 420 <210> 6909 <211> 332 <212> PRT <213> Enterobacter cloacae <400> 6909 Arg Ser Ala Ile Thr Gly Arg Asn Leu Leu Ser Ala Gly Arg Ser Asp Cys Arg Arg Asn Pro Leu Phe Arg Cys Ala Thr Met Ser Thr Phe Phe 25 Leu Gln Gln Leu Ile Asn Gly Leu Thr Leu Gly Ser Val Tyr Gly Leu Ile Ala Ile Gly Tyr Thr Met Val Tyr Gly Ile Ile Gly Met Ile Asn 55 Phe Ala His Gly Glu Val Tyr Met Ile Ser Ala Tyr Leu Ser Ala Ile 70 75 Gly Leu Ala Leu Leu Ala Phe Phe Gly Leu His Ser Phe Pro Leu Leu 90 85 Ile Leu Gly Thr Leu Val Phe Thr Ile Val Val Thr Gly Val Tyr Gly 105 100 Trp Thr Ile Glu Arg Ile Ala Tyr Lys Pro Leu Arg Asn Ser Thr Arg 120 115 Leu Ala Pro Leu Ile Ser Ala Ile Gly Met Ser Leu Ile Leu Gln Asn 140 135 Tyr Val Gln Leu Ser Gln Gly Pro Arg Gln Gln Gly Val Pro Thr Met 150 155 Leu Asp Gly Val Leu Arg Phe His Leu Gly Glu Gly Phe Val Gln Ile 170 165 Thr Tyr Thr Lys Val Phe Ile Leu Ile Ala Ser Phe Ala Gly Met Leu 185 190 180 Val Leu Thr Trp Ile Ile Asn Arg Thr Arg Leu Gly Arg Met Cys Arg 205 200 Ala Val Gln Gln Asp Arg Lys Met Ala Ser Ile Leu Gly Ile Asn Thr 220 215 Asp Arg Ile Ile Ser Leu Val Phe Val Ile Gly Ala Ala Met Ala Gly 230 235 Leu Ala Gly Val Leu Ile Thr Met Asn Tyr Gly Thr Phe Asp Phe Tyr 245 250 Val Gly Phe Val Ile Gly Ile Lys Ala Phe Thr Ala Ala Glu Leu Gly 265 Gly Ile Gly Ser Leu Pro Gly Ala Met Leu Gly Gly Leu Ile Leu Gly 280 Val Ala Glu Ala Gln Phe Ser Gly Met Val Asn Ser Asp Tyr Lys Asp 295 Val Phe Ser Phe Gly Leu Leu Val Leu Ile Leu Ile Phe Arg Pro Gln 310 315 Gly Leu Leu Gly Arg Pro Val Val Ala Lys Val 325 330 <210> 6910

<sup>&</sup>lt;211> 255

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

Lys Ser Tyr Cys Arg Val Ser Gly His Arg Arg Lys Arg Gly Lys Ser 10 Val Ser Glu Pro Met Leu Gln Phe Gln Asp Val Asp Val Phe Tyr Gly 25 Val Ile Gln Ala Leu Lys Gln Val Ser Leu Glu Val Asn Lys Gly Glu 40 Thr Val Ala Leu Ile Gly Ala Asn Gly Ala Gly Lys Ser Thr Leu Leu 55 60 Met Ser Val Phe Gly Gln Pro Arg Ile Arg Asn Gly Gln Ile Leu Phe 70 75 Cys Gly Glu Asp Ile Ser His Lys Ser Thr His Tyr Val Ala Thr Gly 85 90 Gly Ile Ala Gln Ala Pro Glu Gly Arg Arg Ile Phe Pro Asp Met Ser 105 Val Glu Glu Asn Leu Leu Met Gly Thr Ile Pro Val Gly Asn Gln His 120 Ala Ala Glu Asp Met Gln Ser Met Phe Asp Leu Phe Pro Arg Leu Lys 135 140 Glu Arg Arg Asn Gln Arg Ala Met Thr Leu Ser Gly Gly Glu Gln Gln 150 155 Met Leu Ala Ile Ala Arg Ala Leu Met Ser Arg Pro Lys Leu Leu Leu 170 165 Leu Asp Glu Pro Ser Leu Gly Leu Ala Pro Ile Val Val Lys Gln Ile 180 185 190 Phe Gln Thr Leu Arg Glu Leu Ala Arg Asn Gly Met Thr Ile Phe Leu 200 Val Glu Gln Asn Ala His His Ala Leu Lys Leu Ser Asp Arg Gly Tyr 215 220 Val Met Val Asn Gly Gln Ile Arg Leu Ser Gly Ser Gly Glu Ala Leu 230 235 Leu Lys Asp Pro Glu Val Arg Lys Ala Tyr Leu Gly Gly Val 255 245 250

<210> 6911 <211> 185

<212> PRT

<213> Enterobacter cloacae

<400> 6911

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Leu Ser Thr Leu Asp Thr Gln Asn 180 185

405

<210> 6912 <211> 427 <212> PRT

<213> Enterobacter cloacae

<400> 6912 Cys Ser Ala Arg Phe Ala Val Arg Gly Ile Leu Ala Val Leu Ser Met Arg Leu Leu Lys Cys Ile Leu Phe Ser Leu Leu Phe Leu Asp Leu Arg Cys His Gln Ala Phe Gly Phe Ile Pro Gly Ala Lys Thr Ser Leu 40 Leu Arg Asn Ile Ile Met Ser Leu Lys Phe Thr Lys Thr Pro Leu Ser 55 Leu Val Leu Ala Gly Cys Leu Val Thr Ala Phe Ser Ala Gln Ala Asp 70 75 Ile Val Ile Gly Val Ala Gly Pro Phe Thr Gly Pro Asn Ala Thr Tyr 85 90 Gly Asp Gln Tyr Trp His Gly Ala Thr Gln Ala Ala Glu Asp Ile Asn 100 105 Ala Ala Gly Gly Ile Asn Gly Glu Lys Ile Lys Leu Val Gln Gly Asp 120 115 Asp Ala Cys Glu Pro Lys Gln Ala Val Ala Val Ala Asn Arg Leu Val 135 Asp Gln Asp Lys Val Lys Ala Val Val Gly His Phe Cys Ser Ser Ser 150 155 Thr Met Pro Ala Ser Glu Val Tyr Ser Asp Ala Gly Ile Leu Ser Ile 165 170 Thr Pro Gly Ser Thr Asn Pro Leu Ile Thr Glu Arg Gly Met Ser Asp 180 185 190 Ile Phe Arg Met Cys Gly Arg Asp Asp Gln Gln Gly Gln Val Ala Ser 200 Asp Phe Ile Leu Asp Lys Leu Lys Ala Lys Arg Val Val Ile Ile His 215 220 Asp Lys Asp Thr Tyr Gly Gln Gly Leu Ala Asp Ala Thr Lys Ala Ala 230 235 Leu Ala Lys Arg Gly Val Lys Glu Val Met Tyr Glu Gly Leu Ser Arg 245 250 Gly Glu Lys Asp Phe Asn Ala Leu Val Thr Lys Ile Gly Ala Gln Lys Pro Asp Val Val Phe Phe Gly Gly Cys His Pro Glu Ala Gly Pro Leu 280 Val Arg Gln Met Arg Glu Gln Gly Val Gln Ala Lys Phe Phe Ser Gly 295 Asp Cys Ile Val Asn Glu Glu Met Val Thr Ala Ala Gly Gly Ala Gln 310 315 Tyr Thr Asn Gly Ile Tyr Met Thr Phe Gly Lys Asp Pro Arg Leu Ile 330 325 Pro Asp Gly Lys Ala Val Ile Glu Lys Phe Arg Thr Gly Lys Phe Glu 340 345 350 Pro Glu Gly Tyr Thr Leu Tyr Ala Tyr Ala Ser Val Gln Ala Ile Ala 360 Ala Ala Phe Lys Ala Thr Gln Gly Thr Asp Ser Ala Lys Ala Ser Glu 375 380 Trp Leu Lys Ala Asn Pro Val Asp Thr Val Met Gly Lys Lys Ala Trp 390 395 Asp Ser Lys Gly Asp Leu Lys Val Ser Asp Tyr Val Val Tyr Gln Trp

Asp Asp Lys Gly Lys Tyr Lys Glu Val Pro 420 <210> 6913 <211> 296 <212> PRT <213> Enterobacter cloacae <400> 6913 Arg Ser Gly Ala Met Asn Ala Thr Ile Leu Arg Val Glu His Leu Met Met His Phe Gly Gly Ile Lys Ala Leu Asn Asp Val Asn Leu Glu Val 20 25 Gln Arg Gly Ser Ile Thr Ala Leu Ile Gly Pro Asn Gly Ala Gly Lys 35 40 45 Thr Thr Val Phe Asn Cys Leu Thr Gly Phe Tyr Arg Ala Ser Gly Gly 55 . 60 Asn Ile Leu Phe Asn Ala Arg Asn Lys Thr Thr Asn Val Ile Gln Val 70 75 Leu Gly Gln Lys Phe Gln Pro Gly Asp Trp Leu Asn Pro Ala Gln Leu 90 8.5 Gly Gln Arg Leu Phe Tyr Lys Met Phe Gly Gly Thr His Leu Val Asn 100 105 Arg Ala Gly Leu Ala Arg Thr Phe Gln Asn Ile Arg Leu Phe Arg Glu 120 125 115 Met Ser Val Val Glu Asn Leu Leu Val Ala Gln His Met Arg Val Asn 135 140 Arg Asn Leu Leu Ala Gly Val Leu Asn Thr Pro Ala Tyr Arg Arg Ala 150 155 Glu Asn Asp Ala Leu Asp Arg Ala Phe Tyr Trp Leu Glu Val Val Asp 165 170 Leu Val Asp Cys Ala Asn Arg Leu Ala Gly Glu Met Ser Tyr Gly Gln 180 185 190 Gln Arg Arg Leu Glu Ile Ala Arg Ala Met Cys Thr Gly Pro Glu Met 200 195 205 Ile Cys Leu Asp Glu Pro Ala Ala Gly Leu Asn Pro Val Glu Thr His 215 -220 Lys Leu Ser Glu Ile Ile Arg Phe Leu Arg Asp His His Asp Ile Thr 225 230 235 Val Leu Leu Ile Glu His Asp Met Gly Met Val Met Gly Ile Ser Asp 245 250 Asp Ile Ile Val Leu Asp His Gly Asp Val Ile Ala Arg Gly Lys Pro 265 270 Ala Glu Ile Gln His Asn Glu Lys Val Ile Ala Ala Tyr Leu Gly Thr 280 Asp Glu Ser Glu Val Asn Leu 290 <210> 6914 <211> 295 <212> PRT <213> Enterobacter cloacae <400> 6914 Ala Leu Ile Pro Leu Tyr Cys Pro Leu Leu Cys Gly Asn Lys Arg Pro 10 Leu Pro Met Leu Met Ile Thr Ser Phe Ser Asn Pro Arg Val Ala Gln 20 25 Ala Phe Val Asp Tyr Met Ala Thr Gln Gly Ile Ile Leu Thr Ile Gln

35 40 45
Gln His Thr Gln Thr Asp Val Trp Leu Ala Asp Glu Ser Gln Ala Gly

2993

60 55 Arg Val Asn Ala Glu Leu Ala Arg Phe Leu Glu Asn Pro Gly Asp Pro 70 75 Arg Tyr Leu Ala Ala Ser Trp Gln Ser Gly Gln Thr Gly Ser Gly Leu 85 90 His Tyr Gln Arg Phe Pro Phe Leu Ala Thr Leu Arg Glu Arg Ala Gly 100 105 Pro Phe Thr Leu Leu Met Val Ala Cys Ile Ile Val Phe Ile Ile 120 Met Ser Val Val Gly Asp Gln Ser Val Met Ile Ala Leu Ala Trp Pro 135 140 Tyr Asp Pro Ser Leu Gln Phe Asp Val Trp Arg Tyr Phe Thr His Ala 150 155 Leu Met His Phe Ser Val Met His Ile Leu Phe Asn Leu Leu Trp Trp 165 170 Trp Tyr Leu Gly Gly Ala Val Glu Lys Arg Leu Gly Ser Gly Lys Leu 185 190 Ile Val Ile Thr Leu Ile Ser Ala Leu Leu Ser Gly Tyr Val Gln His 200 205 Lys Phe Ser Gly Pro Trp Phe Gly Gly Leu Ser Gly Val Val Tyr Ala 215 220 Leu Met Gly Tyr Ala Trp Leu Arg Gly Glu Arg Asp Pro Asp Ser Gly 230 235 Ile Tyr Leu Gln Arg Gly Leu Ile Thr Phe Ala Leu Ile Trp Leu Ile 245 250 Ala Gly Trp Phe Asp Leu Phe Gly Met Ser Ile Ala Asn Gly Ala His 265 270 Val Thr Gly Leu Ala Val Gly Leu Ala Met Ala Leu Ala Asp Thr Leu 275 280 His Ala Arg Lys Arg Thr 290 `

<210> 6915 <211> 81

<212> PRT

<213> Enterobacter cloacae

<400> 6915

 Ser
 Phe
 Ala
 Met
 Gly
 His
 Thr
 Pro
 Gly
 Ala
 Phe
 His
 Leu
 Thr
 Asn
 Asp

 Thr
 Leu
 Gly
 Ala
 Phe
 Met
 Arg
 Asp
 Asp
 Phe
 Asp
 Thr
 Pro
 Val
 Met

 Val
 Met
 Cys
 Tyr
 His
 Gly
 Asp
 Ser
 Leu
 Gly
 Ala
 Gly
 Ala
 Gly
 Ala
 Ala
 Asp
 Gly
 Phe
 Asp
 Asp
 Ala
 <210> 6916

<211> 301

<212> PRT

<213> Enterobacter cloacae

<400> 6916

Tyr Gly Leu Leu Pro Asp Gly Leu Ile Cys Leu Val Cys Leu Ser Pro
1 5 10 15

Met Val Arg Thr Leu Pro Ala Trp Arg Ser Gly Trp Arg Trp Arg Trp
20 25 30

```
Pro Ile Arg Ser Met Arg Glu Ser Glu His Asn Ser Gln Gly Tyr Phe
                            40
Met Lys Gln Thr Gln Arg His Asp Ala Ile Ile Glu Leu Val Lys Lys
                        55
                                             60
Gln Gly Tyr Val Ser Thr Glu Glu Leu Val Glu Gln Phe Ala Val Ser
                    70
                                        75
Pro Gln Thr Ile Arg Arg Asp Leu Asn Asp Leu Ala Asp Gln Asn Arg
                85
                                    90
Ile Leu Arg His His Gly Gly Ala Ala Leu Pro Ser Ser Ser Val Asn
            100
                                105
Thr Ser Trp His Asp Arg Lys Ala Thr Gln Thr Ala Glu Lys Glu Arg
                            120
                                                 125
Ile Ala Arg Lys Val Ala Ser Gln Ile Pro Asn Gly Ala Thr Leu Phe
                        135
                                            140
Ile Asp Ile Gly Thr Thr Pro Glu Ala Val Ala His Ala Leu Leu Asn
                    150
                                        155
His Glu Asn Leu Arg Val Val Thr Asn Asn Leu Asn Val Ala Asn Thr
                165
                                    170
Leu Met Gln Lys Asp Asp Phe Arg Ile Ile Leu Ala Gly Gly Glu Leu
            180
                                                     190
                                185
Arg Ser Arg Asp Gly Gly Ile Ile Gly Glu Ala Thr Leu Asp Phe Ile
        195
                            200
                                                 205
Ser Gln Phe Arg Leu Asp Phe Gly Ile Leu Gly Ile Ser Gly Ile Asp
                        215
                                             220
Thr Asp Gly Ser Leu Leu Glu Phe Asp Tyr His Glu Val Arg Thr Lys
                    230
                                        235
Arg Ala Ile Ile Glu Asn Ser Arg His Val Met Leu Val Val Asp His
                                    250
                245
                                                         255
Ser Lys Phe Gly Arg Asn Ala Met Val Asn Met Gly Ser Ile Ser Met
            260
                                265
                                                     270
Val Asp Ala Val Tyr Thr Asp Val Met Pro Pro Ala Gly Val Met Gln
                            280
                                                 285
Val Ile Lys Asp Asn Asn Leu Gln Leu Glu Leu Cys
    290
                        295
<210> 6917
<211> 811
<212> PRT
<213> Enterobacter cloacae
<400> 6917
Arg Gln Met Cys Phe Leu Ser Thr Gly Cys Arg Phe Pro Met Ser Gln
                                    10
Pro Thr Phe Asn Lys Ala Gln Phe Gln Ala Ala Leu Thr Arg Gln Trp
Gln Arg Phe Gly Leu His Ala Ala Asn Glu Met Thr Pro His Gln Trp
Trp Gln Ala Val Ser Gly Ala Leu Ala Glu Gln Leu Asp Ala Gln Pro
Val Ala Lys Pro Val Lys Gly Gln Arg His Val Asn Tyr Ile Ser Met
                                        75
Glu Phe Leu Ile Gly Arg Leu Thr Gly Asn Asn Leu Leu Asn Leu Gly
Trp Tyr Gln Glu Val Gly Asp Val Leu Lys Glu His Asp Ile Asn Leu
            100
                                105
                                                    110
Thr Asp Leu Glu Glu Glu Val Asp Pro Ala Leu Gly Asn Gly Gly
        115
                            120
                                                125
Leu Gly Arg Leu Ala Ala Cys Phe Leu Asp Ser Met Ala Thr Val Gly
                        135
                                            140
Gln Ser Ala Ile Gly Tyr Gly Leu Asn Tyr Gln Tyr Gly Leu Phe Arg
                    150
```

Gln Ser Phe Ala Asp Gly His Gln Met Glu Ala Pro Asp Asp Trp His 165 170 Arg Asn Thr Tyr Pro Trp Phe Arg His Asn Ala Gln Leu Asp Val Gln 180 185 Val Gly Ile Gly Gly Lys Val Thr Lys Gln Gly Leu Trp Glu Pro Ala 200 205 Phe Thr Ile Thr Gly Glu Ala Trp Asp Leu Pro Val Leu Gly Tyr Arg 215 220 Asn Gly Val Ala Gln Pro Leu Arg Leu Trp Gln Ala Lys His Ala His 230 235 Pro Phe Asn Leu Thr Lys Phe Asn Asp Gly Asp Phe Leu Arg Ala Glu 250 Gln Gln Gly Ile Asp Ala Glu Lys Leu Thr Lys Val Leu Tyr Pro Asn 265 Asp Asn His Leu Ala Gly Lys Lys Leu Arg Leu Met Gln Gln Tyr Phe 280 285 Gln Cys Ala Cys Ser Val Ala Asp Ile Leu Arg Arg His His Leu Ala 295 300 Gly Arg Lys Leu Ala Gln Leu Pro Asp Phe Glu Val Ile Gln Leu Asn 315 310 Asp Thr His Pro Thr Ile Ala Ile Pro Glu Leu Leu Arg Val Leu Ile 325 330 Asp Glu His Gln Leu Ser Trp Asp Asp Ala Trp Ala Ile Thr Ser Arg 345 350 340 Thr Phe Ala Tyr Thr Asn His Thr Leu Met Pro Glu Ala Leu Glu Cys 360 365 Trp Asp Glu Lys Leu Val Lys Thr Leu Leu Pro Arg His Met Gln Ile 370 375 380 Ile Asn Lys Ile Asn Asp Gln Phe Lys Thr Leu Val Glu Lys Thr Trp 390 395 Pro Gly Asp Lys Ala Val Trp Ala Lys Leu Ala Val Val His Asp Lys 405 410 Gln Val Arg Met Ala Asn Met Cys Val Val Ser Gly Phe Ala Val Asn 420 425 Gly Val Ala Ala Leu His Ser Asp Leu Val Val Lys Asp Leu Phe Pro 440 445 Glu Tyr His Gln Leu Trp Pro Thr Lys Phe His Asn Val Thr Asn Gly 455 460 Ile Thr Pro Arg Arg Trp Ile Lys Gln Cys Asn Pro Leu Leu Ala Gly 470 475 Leu Leu Asp Lys Thr Leu Lys Lys Glu Trp Ala Asn Asp Leu Asp Gln 490 Leu Ile Asn Leu Glu Lys Leu Ala Asp Asn Ala Lys Phe Arg Glu Gln 505 Tyr Arg Ala Ile Lys Leu Glu Asn Lys Val Arg Leu Ala Glu Phe Val . 515 520 525 Lys Met Arg Thr Gly Ile Glu Ile Asn Pro Asn Ala Ile Phe Asp Ile 535 540 Gln Ile Lys Arg Leu His Glu Tyr Lys Arg Gln His Leu Asn Leu Leu 550 555 His Ile Leu Ala Leu Tyr Lys Glu Ile Arg Glu Asn Pro Gln Ala Asp 565 570 Arg Val Pro Arg Val Phe Leu Phe Gly Ala Lys Ala Ala Pro Gly Tyr 580 585 590 Tyr Leu Ala Lys Asn Ile Ile Leu Ala Ile Asn Lys Val Ala Ala Ala 600 605 Ile Asn Asn Asp Pro Lys Val Gly Asp Lys Leu Lys Val Val Phe Leu 615 620 Pro Asp Tyr Cys Val Ser Ala Ala Glu Met Leu Ile Pro Ala Ala Asp 630 635 Ile Ser Glu Gln Ile Ser Thr Ala Gly Lys Glu Ala Ser Gly Thr Gly

```
645
                                    650
Asn Met Lys Leu Ala Leu Asn Gly Ala Leu Thr Val Gly Thr Leu Asp
                               665
           660
Gly Ala Asn Val Glu Ile Ala Glu Lys Val Gly Glu Asn Ile Phe
                           680
                                                685
Ile Phe Gly His Thr Val Glu Glu Val Lys Ala Ile Lys Ala Lys Gly
                       695
                                            700
Tyr Asp Pro Val Lys Trp Arg Lys Lys Asp Lys Val Leu Asp Ala Val
                   710
                                        715
Leu Lys Glu Leu Glu Ser Gly Lys Tyr Ser Asp Gly Asp Lys His Ala
                725
                                    730
Phe Asp Gln Met Leu His Ser Met Asp Lys Gln Gly Gly Asp Pro Tyr
                                745
            740
Leu Val Met Ala Asp Phe Ser Ala Tyr Val Glu Ala Gln Lys Gln Val
                            760
Asp Val Leu Tyr Arg Asp Gln Asp Ala Trp Thr Arg Ala Cys Ile Leu
                        775
                                            780
Asn Thr Ala Arg Cys Gly Met Phe Ser Ser Asp Arg Ser Ile Arg Asp
                    790
                                        795
Tyr Gln Ala Arg Ile Trp Gln Ala Lys Arg
                805
<210> 6918
<211> 697
<212> PRT
<213> Enterobacter cloacae
<400> 6918
Gly Ser Ala Met Glu Ser Lys Arg Leu Asp Ser Ala Ala Gln Ala Ala
                                    10
Gly Ile Ser Leu Ser Tyr Ile Asn Ala His Gly Lys Pro Gln Ser Ile
            20
Gly Ala Asp Thr Lys Arg Arg Leu Leu Asp Ala Met His Lys Thr Asp
        35
                            40
Ala Lys Ala Ser Gly Ala Pro Val Pro Asn Val Lys Val Phe Thr Ala
                        55
                                            60
Gly Lys Lys Met Pro Leu Ala Val Glu Gly Arg Gly Glu Phe Ser Trp
                    70
                                        75
Leu Leu Thr Thr Glu Glu Gly His Gln His Lys Gly His Ala Thr Gly
                85
                                    90
Gly Lys Thr Leu Asn Leu Pro Ala Lys Leu Pro Glu Gly Tyr His Thr
            100
                                105
Leu Thr Leu Thr Arg Asp Asp Gln Arg Phe His Cys Arg Val Ile Val
                            120
Ala Pro Lys Arg Cys Tyr Glu Pro Gln Ala Leu Leu Glu Gly Lys Lys
                        135
                                            140
Leu Trp Gly Ala Cys Val Gln Leu Tyr Thr Leu Arg Ser Asp Ser Asn
                    150
                                        155
Trp Gly Ile Gly Asp Phe Gly Asp Leu Lys Lys Met Leu Ala Ser Val
                                    170
Gly Glu Arg Gly Gly Ala Phe Ile Gly Leu Asn Pro Ile His Ala Leu
           180
                                185
                                                    190
Tyr Pro Ala Asn Pro Glu Ser Ala Ser Pro Tyr Ser Pro Ser Ser Arg
                            200
                                                205
Arg Trp Leu Asn Val Ile Tyr Ile Asp Val Asn Ala Leu Asp Asp Phe
                       215
                                            220
Lys Asn Ser Lys Glu Ala Gln Ala Trp Trp Lys Leu Glu Thr Thr Gln
                   230
                                        235
Gln Met Leu Lys Gln Ala Arg Asp Ala Asp Trp Val Asp Tyr Ala Ser
               245
                                    250
```

Val Thr Ala Leu Lys Met Ala Ala Leu Arg Leu Ala Trp Lys Gly Phe

```
260
                               265
                                                    270
Ala Lys Arg Asp Asp Glu Gln Met Ala Ala Phe Arg Gln Phe Val Met
                     280
       275
                                                285
Gln Glu Gly Glu Ser Leu Tyr Trp Gln Ala Ala Phe Asp Ala Leu His
                       295
                                            300
Ala Tyr Gln Val Gln Glu Asp Glu Met Arg Trp Gly Trp Pro Val Trp
                   310
                                        315
Pro Glu Ala Tyr Gln Ser Val Asp Thr Pro Glu Val Lys Ala Phe Cys
                325
                                    330
Glu Thr His Ala Asp Glu Val Asp Phe Tyr Leu Trp Leu Gln Trp Leu
                                345
Ala Tyr Ser Gln Phe Ala Ala Cys Trp Gln Val Ser Gln Gly Tyr Asn
                            360
Met Pro Ile Gly Leu Tyr Arg Asp Leu Ala Val Gly Val Ala Glu Gly
                        375
Gly Ala Glu Thr Trp Cys Asp Arg Glu Leu Tyr Cys Leu Lys Ala Ser
                    390
                                        395
Val Gly Ala Pro Pro Asp Ile Leu Gly Pro Leu Gly Gln Asn Trp Gly
                405
                                    410
Leu Pro Pro Met Asp Pro His Val Met Ala Ala Arg Ala Tyr Glu Pro
                                425
                                                    430
            420
Phe Ile Asp Leu Leu Arg Ala Asn Met Gln Asn Cys Gly Ala Leu Arg
                            440
        435
Ile Asp His Val Met Ser Val Leu Arg Leu Trp Trp Ile Pro Tyr Gly
                        455
    450
                                            460
Glu Thr Ala Asp His Gly Ala Tyr Val Gln Tyr Pro Val Asp Asp Leu
                    470
                                        475
Leu Ser Ile Leu Ala Leu Glu Ser Lys Arg His Gln Cys Met Val Ile
                                    490
                485
Gly Glu Asp Leu Gly Thr Val Pro Val Glu Ile Val Ser Lys Leu Arg
            500
                                505
                                                    510
Asp Ser Gly Val Tyr Ser Tyr Lys Val Leu Tyr Phe Glu Asn Asp His
        515
                            520
                                                525
Glu Lys Thr Phe Arg Ala Pro Lys Ala Tyr Pro Glu Gln Ser Met Ala
    530
                        535
                                            540
Val Ala Thr Thr His Asp Leu Pro Thr Leu Arg Gly Tyr Trp Glu Ser
                    550
                                        555
Gly Asp Leu Thr Leu Gly Lys Thr Leu Gly Leu Tyr Pro Asp Glu Glu
                565
                                    570
Val Leu Arg Gly Leu Tyr Gln Asp Arg Glu Leu Ala Lys Gln Gly Leu
            580
                                585
Leu Asp Ala Leu His Lys His Gly Cys Leu Pro Lys Arg Ala Gly His
        595
                            600
Lys Ala Ser Leu Met Ser Met Thr Pro Met Leu Asn Arg Gly Leu Gln
                        615
Arg Tyr Ile Ala Asp Ser Asn Ser Ala Leu Leu Gly Leu Gln Pro Glu
                    630
                                        635
Asp Trp Ile Asp Met Ala Glu Pro Val Asn Ile Pro Gly Thr Ser Tyr
                645
                                    650
Gln Tyr Lys Asn Trp Arg Arg Lys Leu Ser Thr Thr Leu Glu Ala Met
                                665
Phe Ala Asp Asp Gly Val Asn Arg Leu Ile Lys Asp Leu Asp Lys Arg
                            680
Arg Arg Ala Val Gly Asn Lys Arg
<210> 6919
```

<sup>&</sup>lt;211> 89

<sup>&</sup>lt;212> PRT

<sup>&</sup>lt;213> Enterobacter cloacae

<400> 6919 Leu Ser Arg Gln Ser Arg Pro Ala His Pro Ala Ala Arg Cys Gly Gly 10 Thr Thr Asp Arg Tyr Cys Gly Ala Ser Arg Pro Ala Leu Pro Ser Asp 25 Gly Arg Arg Gln Met Thr Asp Gly Thr Gly Arg Thr Asp Ser Ser Gly 40 4.5 His Ser Gln Ser Pro Thr Gly Pro Pro Leu Pro Trp Asn Pro Gly Ser 55 60 Arg Leu Pro Asp Val Pro Asp Arg Arg Tyr Pro Ala Pro Gly Gln Pro 70 Leu Leu Pro Ala Asp Arg Ser Gly 85

<210> 6920 <211> 920

<212> PRT

<213> Enterobacter cloacae <400> 6920 Leu Arg Ser Ala Lys Lys Ile Asn Ser Leu Val Pro His Ser Glu Val Lys Thr Met Leu Ile Pro Ser Lys Leu Ser Arg Pro Val Arg Leu Asp

20

His Thr Val Val Arg Glu Arg Leu Leu Ala Lys Leu Ser Gly Ala His 35 40 Asn Phe Arg Leu Ala Leu Val Thr Ser Pro Ala Gly Tyr Gly Lys Thr 55 Thr Leu Ile Ser Gln Trp Ala Ala Gly Lys Ser Asp Leu Gly Trp Tyr 70 75

2.5

10

Ser Leu Asp Glu Gly Asp Asn Gln Glu Arg Phe Ala Ser Tyr Leu 8.5 90 Ile Ala Ala Ile Gln Gln Ala Thr Asn Gly His Cys Val Thr Ser Glu

105 100 110 Val Met Val Gln Lys Arg Gln Tyr Ala Ser Leu Ser Ser Leu Phe Ser 120

Gln Leu Phe Ile Glu Leu Ala Glu Trp His Arg Pro Leu Tyr Val Val 135 140

Ile Asp Asp Tyr His Leu Ile Thr Asn Pro Val Ile His Glu Ser Met 155 150

Arg Phe Phe Leu Arg His Gln Pro Glu Asn Leu Thr Leu Val Val Leu 165 170

Ser Arg Asn Leu Pro Gln Leu Gly Ile Ala Asn Leu Arg Val Arg Asp 185

Gln Leu Leu Glu Ile Gly Ser Gln Gln Leu Ala Phe Thr His Gln Glu 200

Ala Lys Gln Phe Phe Asp Cys Arg Leu Thr Ser Pro Ile Glu Ala Ser 215 220

Glu Ser Ser Arg Leu Cys Asp Asp Val Ala Gly Trp Ala Thr Ala Leu 235 230

Gln Leu Ile Ala Leu Ser Ala Arg Gln Asn Asn Ser Pro Thr His Gln 245 250

Ser Ala Arg Arg Leu Ala Gly Ile Asn Ala Ser His Leu Ser Asp Tyr 265 270

Leu Val Asp Glu Val Leu Asp Ser Val Asp Leu Ser Thr Arg His Phe 275 280 285

Leu Leu Lys Ser Ser Leu Leu Arg Ser Met Asn Asp Ala Leu Ile Val 295 300

Arg Val Thr Gly Ile Glu Asn Gly Gln Leu Gln Leu Glu Glu Ile Glu 310 315

Arg Gln Gly Leu Phe Leu Thr Arg Met Asp Asp His Gly Glu Trp Phe

				325					330					335	
Ser	Tyr	His	Pro 340	Leu	Phe	Gly	Ser	Phe 345	Leu	Arg	Gln	Arg	Cys 350	Gln	Trp
Glu	Leu	Ala 355	Ala	Glu	Leu	Pro	Asp 360	Ile	His	Arg	Ala	Ala 365	Ala	Glu	Ser
Trp	Met 370	<b>A</b> la	Gln	Gly	Phe	Pro 375	Ser	Glu	Ala	Ile	His 380	His	Ala	Leu	Ala
Ala 385	Gly	Asp	Ala	Gly	Met 390	Leu	Arg	Asp	Ile	Leu 395	Leu	Asn	His	Ala	Trp 400
Gly	Leu	Phe	Asn	His 405	Ser	Glu	Leu	Thr	Leu 410	Leu	Glu	Glu	Ser	Leu 415	Lys
			420			Leu		425					430		
		435				Ser	440					445			
	450					Gln 455					460				
465		-			470	Ala		_		475					480
-	_		_	485		Glu	_		490					495	
			500			Tyr		505					510		
_		515				Lys	520					525			
	530					Met 535					540				
545					550	Gln				555					560
				565		Glu			570					575	
			580			Gln		585				·	590		
	_	595				Trp	600	_		_		605			
	610		_			Leu 615					620				
625					630	Ala				635					640
_	_		_	645		Arg			650					655	
			660			His		665					670		
	-	675		_	_	Gln	680		_			685			
	690					Pro 695	_				700				
705					710	Asn				715					720
_				725		Ile			730					735	
_			740			Ser		745					750		
		755				Ala -	760					765			
	770					1775			_		780				
785					790	Val				795					800
Gln	Leu	Asn	Thr	Leu 805	Pro	Glu	Leu	Asp	Gln 810	His	Arg	Ala	Gln	Arg 815	Ile

```
Leu Arg Glu Ile Asn Gln His His Arg His Lys Phe Ala His Phe Asp
                                825
            820
Glu Asn Phe Val Glu Arg Leu Leu Asn His Pro Glu Val Pro Glu Leu
        835
                            840
                                                845
Ile Arg Thr Ser Pro Leu Thr Gln Arg Glu Trp Gln Val Leu Gly Leu
                        855
                                            860
Ile Tyr Ser Gly Tyr Ser Asn Glu Gln Ile Ala Gly Glu Leu Ala Val
                   870
                                        875
Ala Ala Thr Thr Ile Lys Thr His Ile Arg Asn Leu Tyr Gln Lys Leu
                885
                                    890
Gly Val Ala His Arg Gln Asp Ala Val Gln His Ala Gln Gln Leu Leu
            900
                                905
Lys Met Met Gly Tyr Gly Val
<210> 6921
<211> 63
<212> PRT
<213> Enterobacter cloacae
<400> 6921
Ile Thr Arg Ser Thr Arg Ile Phe Gln Pro Arg Val Lys Ile Ser His
Val Asn Asp Pro Gly Phe Trp Leu Phe Lys Glu Tyr Phe Asn Leu Thr
            20
Ile Gly Glu Thr Ile Lys Ser Trp Ser Ala Leu Glu Thr Ile Ile Ser
                            40
Val Cys Gly Leu Val Gly Val Leu Leu Leu Asn Met Val Val
    50
                        55
<210> 6922
<211> 351
<212> PRT
<213> Enterobacter cloacae
<400> 6922
Lys Lys Glu His Arg Met Lys Tyr Val Asn Leu Gly Arg Ser Gly Leu
                                    10
Gln Val Ser Arg Leu Cys Leu Gly Cys Met Ser Tyr Gly Glu Pro Glu
Arg Leu Pro Gln Pro Trp Ser Leu Asp Glu Lys Ala Ser Arg Pro Leu
Ile Arg Gln Ala Leu Glu Ala Gly Ile Asn Phe Phe Asp Thr Ala Asn
Ile Tyr Ser Gly Gly Ser Ser Glu Glu Ile Thr Gly Lys Ala Leu Arg
Glu Met Ala Arg Arg Asp Glu Ile Val Val Ala Thr Lys Thr Phe Phe
Pro Trp Arg Asn Ser Pro Asn Thr Gly Phe Leu Ser Arg Lys Ala Ile
                                105
                                                    110
Phe Gln Ser Ile Asp Asp Ser Leu Met Arg Leu Gly Met Asp Tyr Val
                            120
                                                125
Asp Leu Phe Gln Ile His Arg Phe Asp His Ser Thr Pro Val Glu Glu
                        135
                                            140
Thr Met Glu Ala Leu His Asp Leu Val Lys Ser Gly Lys Val Arg Tyr
                   150
                                        155
Ile Gly Ala Ser Ser Met Glu Ala Trp Arg Phe Ala Lys Met Gln His
                165
                                    170
Thr Ala Glu Leu Asn Gly Trp Thr Arg Phe Ile Thr Met Gln Pro Gln
                                185
```

Tyr Asn Leu Leu Tyr Arg Glu Glu Glu Arg Glu Met Leu Pro Leu Cys